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THE RAILWAY GAZETTE
33, TOTHILL STREET, WESTMINSTER, S.W.1.

Government Plans for Transport Nationalisation

IT is now expected that the Government's Bill for the nationalisation of transport will be introduced either before Christmas or immediately after the recess in February next. The latest indications are that one Bill will cover all the various forms of transport which it is proposed should be brought under State control. It is also believed that the Bill will contain detailed provisions, instead of enabling the Ministry of Transport to fix important details by Orders. Compensation is likely to be determined by machinery somewhat similar to that established under the Coal Industry Nationalisation Bill. The political correspondent of *The Financial Times* states that the grand total of compensation payable is estimated in official circles at £1,000,000,000. If this figure should prove correct, it is clear that it will be totally inadequate, for the railways' own estimate of the assets replacement valuation of their undertakings alone is approximately £2,000,000,000. Arbitration might result in a substantial increase in the figure, but in any event, as a basis, the sum of £1,000,000,000 appears to be very low.

* * * *

Mr. Strauss Tells the Institute of Transport

Mr. G. R. Strauss, the Parliamentary Secretary of the Ministry of Transport, at the anniversary luncheon of the Institute of Transport on Tuesday last, left no doubt as to the Government's intentions. In his view the outstanding difficulty in the present transport system was the impossibility of correlating road and rail rates, and he added that all the high endeavour which had been made to overcome this difficulty had ended in failure. He criticised the recent memorandum submitted to the Minister by the railway and road haulage industries on the grounds that it was indefinite in its wording, but he added that it was not the fault of those who had tried so hard that they had failed to reconcile the irreconcilable. He went on to say that so far all energies had been given to trying to get a workable rates structure for the road and rail industries on the basis of separate financial entities. If these separate financial entities were to disappear, he suggested that it would not be impossible to fix rates based on the needs of industry and the travelling public, and that it was clear that no solution was possible except to establish unity of financial interest by common ownership.

* * * *

The Coal Problem

Mr. Robert Foot, Chairman of the Mining Association of Great Britain, made some forthright comments on the present unhappy position of the coal mining industry in this country in an address to the North-Western Fuel Luncheon Club at Manchester on Wednesday last. He pointed out that never at any time under private ownership and free enterprise had the productive capacity of the coal industry fallen short of the demand for coal. In 1945 there had been slightly more wage earners on colliery books than in 1941—the last complete year in which private enterprise was in control of the industry—and there was still only one thousand fewer. Moreover, there had been the same proportion of coal-face workers in both years, but in 1941 every wage earner had produced, on the average, 50 tons more coal than in 1945. In a recent tour overseas, he had found wide misapprehension in foreign minds as to our present official policy of encouraging our industries and railways to convert to oil firing. Mr. Foot said that the missing link in the coal industry, in present circumstances, was the will to work. He thought that there would be great improvements if both incentive and discipline in the industry could be restored. More important still was a restoration of the craftsman's personal sense of responsibility for a job well done. This would become increasingly important in all branches of industry with the spread to State management.

* * * *

L.P.T.B. Fares Increase

On November 4, the Minister of Transport announced that he had decided to accept, with one exception, the recommendations of the Railway Rates Tribunal, sitting as a Consultative Committee, as to the level of L.P.T.B. fares in 1947. He explained, that, since the inquiry, the Board had increased the

wages of its shop staff, which would mean increased expenditure of £1,000,000, including arrears, in 1947, and by about £500,000 in subsequent years. The additional revenue required was, therefore, increased from the £4,250,000 estimated to £5,250,000. As the scale involved the re-grouping of stages, it could not be put into force for eight months, and would yield £1,500,000 less than the sum required. He had, therefore, amended the proposed scale of ordinary fares to enable it to be brought into force early in January next, would yield the sum required, and would avoid certain difficulties inherent in its proposals. He accepted the recommendation that 1½d. fares should remain unchanged, but had decided that all road and rail 2d. fares should be increased to 2½d., instead of the increase only being applied over 1½ railway miles or 3 road stages as recommended. He accepted the recommendations that all road fares over 2d. should be increased by 1d., rail fares of 3d. and 4d. by 1d., and that workmen's fares, cheap fares, season tickets, weekly tickets, etc., should be increased as stated in our issue of November 1.

* * * *

Linking Darwin with South Australia

An Australian Premiers' Conference in January this year agreed in principle on the construction of a new 4 ft. 8½ in. gauge line from Birdum, in the Northern Territory, to Bourke, in New South Wales, to provide Darwin with through rail communication to the south. The proposed course of this line was shown in a map on page 66 of our July 19 issue. We publish this week a letter from Mr. Harold W. Clapp, Director-General of the Rail Standardisation Division, Department of Transport, in which he explains that general agreement between the Commonwealth and the States concerned could not be reached on this proposal. The Commonwealth has, therefore, entered into an agreement with the States of New South Wales, Victoria, and South Australia for implementing works proposed under the "Clapp plan," and a provision of the Northern Territory Acceptance Act, 1910, whereby the Commonwealth undertook to connect Adelaide and Darwin by railway. This involves construction of a 4 ft. 8½ in. line between the present railheads in the Northern Territory at Birdum and Alice Springs. The agreement has been incorporated in a Commonwealth Act of Parliament which was passed recently. It is expected that the agreement will be ratified shortly by New South Wales, Victoria, and South Australia, so that the conversion of connecting lines in those States can begin.

* * * *

Overseas Railway Traffics

The principal Argentine railways have recorded improved traffics throughout the fortnight ended October 26, after some fluctuations on the Central Argentine and the Buenos Ayres Great Southern in the preceding fourteen days. Entre Ríos results, on the other hand, have not maintained the small improvement of ps. 300 shown in the sixteenth week, a subsequent decrease of ps. 2,200 having put the aggregate for seventeen weeks ps. 43,300 behind the previous year. The Argentine North-Eastern began the fortnight with a loss of ps. 10,400, which was, however, smaller than that experienced in the preceding week, and there was a recovery in the week ending October 26 which gave an increase of ps. 2,000 over 1945-46. Results are compared in the table below:

	No. of week	Weekly traffics	Inc. or dec.	Aggregate	Inc. or dec.
Buenos Ayres & Pacific*	17	2,350	+395	37,178	+3,594
Buenos Ayres Great Southern*	17	3,517	-620	54,787	-2,804
Buenos Ayres Western*	17	1,458	+238	20,292	+1,223
Central Argentine*	17	3,243	+278	52,661	+1,044
Canadian Pacific	43 2,344,000	-165,500	60,322,000	-6,010,750

* Traffic returns in thousands of pesos

A statement by the Canadian Pacific Railway reports that September showed a net operating deficit of £252,750, compared with an income of £677,750 in September, 1945. The September statement takes account of the retrospective cost from June 1 of the 10 cents an hour wage increase awarded recently by the War Labour Board, leaving subsequent months to be burdened with the current cost only. The total cost of the wage increase from June 1 to the end of the year is computed at £2,500,000.

Shepton Mallet Viaduct

Normal working was resumed on August 1 over the viaduct at Shepton Mallet which carries the Somerset & Dorset Joint Railway over the main road from Shepton Mallet to Bath. This viaduct partly collapsed at the beginning of February, as recorded in our February 8 issue. It is of six arches, of which the central ones are 60 ft. in height, and was built to take a single line. Some 60 years ago it was widened to take a double track; it was two arches of this widened portion which collapsed. No traffic had been permitted to pass for some days before the collapse. The original section remained undamaged, and traffic working on the single line was resumed within 12 hours. The work of rebuilding the collapsed section was undertaken by William Cowlin Limited, of Bristol, under the supervision of Mr. W. H. Shortt, Divisional Engineer, Southern Railway, with Mr. G. F. George acting as Resident Engineer. Two of the remaining arches had to be demolished, so that four new arches were built. The work was effected in mass concrete, and the piers faced with brindle-brick. A feature was the use of tubular scaffolding, for which a contract was made with Scaffolding (Great Britain) Limited. The work was expected to occupy about nine months, but by a special effort it was completed within six months, and double-line traffic was reopened to accommodate the heavy August Bank Holiday traffic on the Bath-Bournemouth line.

* * * *

London-Manchester via Stoke

An interesting feature of the L.M.S.R. winter timetables is the increasing use which is being made of the Stoke-on-Trent route between Euston and Manchester, as a relief to the main line *via* Crewe. Originally, the former route, which is the shortest of any—183½ miles as compared with 188½ miles *via* Crewe and Styall, or 189 miles *via* Crewe and Stockport—used North Staffordshire Railway metals for 38½ miles between Colwich (junction with the L.N.W.R. main line) and Macclesfield; but several important L.N.W.R. trains between Euston and Manchester travelled this way. After grouping, the L.M.S.R. continued and expanded the practice. Hitherto, a controlling factor has been that no engine heavier than the Class "5XP" 4-6-0s has been permitted over this line, owing to weight limitations, but the restriction has been eased to permit the use of "Royal Scot" 4-6-0 locomotives. The most interesting new service by this route is the 2.10 p.m. from Euston, nominally non-stop over the 177.4 miles to Stockport, but actually stopping at Grange Junction, just north of Stoke, to take water, as also does the 12.15 p.m. from Euston, advertised as non-stop from Nuneaton to Stockport. The 10.20 a.m., 2.50 p.m., and the new 3.55 p.m. from Euston are other expresses taking the Stoke route, as well as the 8.20 and 10.20 a.m. and 2.10 p.m. from Manchester to Euston, though, curiously enough, not the 11.55 a.m. up, present version of the pre-war "Lancastrian," which continues to run *via* Crewe.

* * * *

Recollections of an R.T.O.

Service travellers who confined their journeys to the limits prescribed on their warrants, and observed the dates stamped on their leave passes, rarely made personal acquaintance with the R.T.O. Such contacts with him as were made by the more adventurous or negligent were not conducive to a just appreciation of his geniality and resource. An article this week by Lt.-Colonel Francis Ward, who was R.T.O. at Charing Cross in 1939, and A.Q.M.G. (M.), London District, from 1942 to 1946, describes how the first R.T.O.s. at the London termini were recruited, and how, in cordial association with the railway staff, they coped with the varied and often dramatic circumstances of military transport. Although the first R.T.O.s. were drawn from gentlemen "of ripe age," our contributor describes P.T. classes for the R.T.O. and his staff at 6 a.m. at Charing Cross, for it is a military dogma that, whereas the civilian may achieve venerable years without recourse to gymnastics at prescribed times, the soldier is subject to rapid decay if allowed to sit down for long periods. Another episode records how a day's extra leave inadvertently granted at Dover was blotted out with rubber stamps enthusiastically wielded by Lt.-Colonel Ward and the stationmaster at Victoria. Cynics may here reflect that the R.T.O. is always true to type. Let them read our contributor's article to be persuaded of his humanity and humour.

Southern Railway £15,000,000 Electrification and Diesel Plan

AN outstanding feature of the policy of the railway boards since the advent to power of the present Government, and the consequent likelihood of an attempt to impose permanent State control on the industry, has been their refusal to be daunted in going forward with their plans for the improvement of their undertakings and the services they render. Whatever the outcome of political attempts to interfere with British railways, the present administrations have shown themselves fully alive to the need for progress, and have demonstrated amply the efficiency of the industry under its present ownership. Sir Eustace Missenden gave the key to the policy when, discussing the Southern Railway's latest projected developments last week, he said that an organisation like a railway could not stand still—it had either to make progress or fall back. He added that, under private enterprise the first of these courses was being adopted, and if nationalisation were to come, the present board would hand over the Southern Railway in the highest state of efficiency, and with pride in a job well done.

The progressive policy of the Southern Railway in the electrification of successive large sections of its system in south and south-eastern England, was interrupted by the war. With the end of hostilities it soon became apparent that further stages would be undertaken. In our May 3 issue we recorded the strengthening of the lattice girder viaduct at Cook's Pond, between Dormans and East Grinstead, and in our July 26 issue we drew attention to the fact that 24½ miles from Sandstead to Horsted Keynes, via Oxted and East Grinstead, were to be included in post-war electrification plans. Last week Sir Eustace Missenden, Southern Railway General Manager, announced widespread plans for dealing with no less than 284 route miles of main lines to the Kent coast, and on secondary routes to Brighton.

Details of this plan, which are estimated to cost some £15,000,000, are given elsewhere in this issue. The project marks a new stage in Southern Railway electrification, for its completion will result in the elimination of steam locomotive working from the lines of the former London Brighton & South Coast and South Eastern & Chatham Railways. For shunting work, and on feeder services and local goods trains, diesel-electric traction will be used, and the Southern Railway is, therefore, the first of the British railways to announce its plans for the widespread use of diesel-electric power, which hitherto in this country, apart from the considerable number of diesel shunting engines in use, has been confined to railcar applications.

Moreover, the Southern Railway is consulting with manufacturers to explore the possibility of a main-line diesel locomotive being designed for use on the West of England route. For this purpose a locomotive of some 2,500 h.p. would be required. The difficulty here will lie in designing a unit or units of the requisite power within the limits of length, weights, and loading gauge practicable in this country, where all these factors are more restricted than in the United States.

Under the scheme now announced, the great majority of Southern Railway trains operating in the area east of Portsmouth will be either the well-known Southern Railway multiple-unit stock type, or will be hauled by electric locomotives, generally similar to those described in our January 23, 1942, issue. It will be recalled that the mechanical parts of these electric locomotives were built at Ashford to the design of Mr. O. V. S. Bulleid, Chief Mechanical Engineer of the Southern Railway, who also will be responsible for building the mechanical parts of the diesel-electric locomotives. Very extensive tests, particularly on goods train operation, have been made with these electric locomotives, and a considerable speeding up in goods train traffic has been shown to be possible by their use; it has been said that the principal trouble encountered has been associated with hot boxes on wagons! For the fulfilment of the programme just announced, some 150 of these electric locomotives will be required, and the economy of working which will be achieved may be gauged from the experience of Southern Railway officers, which indicates that one electric locomotive will replace two steam locomotives; the availability of the former, of course, will be very much greater. Apart from the saving in coal, which is put at 300,000 tons a year, the elimination of steam locomotive working will tend to assist in the abatement of smoke, particularly at London termini.

From an operating viewpoint, one of the most important results of the new plan, when effective, will be the reduction and greater uniformity on headway, particularly in freight working. A certain amount of resignalling and adjustment of block sections will be a consequential requirement.

Rail and Road Hauliers Urge Public Inquiry

THE four main-line railway companies and the Road Haulage Association have arranged for publication in the Press of a joint advertisement urging that there should be a public inquiry before an impartial tribunal before any Bill for the nationalisation of transport is introduced into Parliament. The advertisement is being issued immediately before the opening of the new session of Parliament on Tuesday, November 12. Nationalisation of inland transport, by itself, will not ensure co-ordination of the various forms of transport, and this problem will have to be faced whether they are nationalised or continue to operate under private enterprise. The advertisement reminds the public that the plans of the railway companies and the association for securing the co-ordination of freight transport—which plans, incidentally, have been dismissed very summarily by the Minister of Transport—would leave traders and the public with complete freedom to select the form of transport they desire to use, or if they prefer, to use their own transport. The public is urged, therefore, to support the demand for an inquiry by an impartial tribunal before being committed to any scheme which might damage irretrievably the industrial prosperity of the country.

Although the reception of the main-line railway companies booklet "British Railways and the Future" (see our October 18 issue), was somewhat mixed, it was conceded generally that the companies have a fairly impressive case for a public inquiry. The booklet argued that the efficiency to which the companies had brought their undertakings before the outbreak of war, enabled them to perform remarkable tasks during the war; that experience had shown that the present four organisations already are as large as can, in practice, be managed from a central headquarters, and their amalgamation into one monster organisation would lessen their efficiency; that State ownership in other parts of the world in no case has afforded the public as good a service as that provided by the British railways under normal circumstances; that even a nationalised system could not undertake a more comprehensive list of improvements than those already planned by the companies; and that to make any change in their present ownership and control would involve immense administrative and financial dislocation and obstruct and seriously delay their return to normal conditions, which, in turn, would handicap other industries in their return to normal production.

Finally, the companies claimed that the proposals for the co-ordination of road and rail transport which were published by them in July last would achieve a large measure of co-operation with a minimum of disturbance of pre-war practice, leave ample scope for free enterprise on a fair competitive basis, and yet make full provision for emulative co-operation. With these considerations in mind, it is hoped that traders and public will support the request for a public inquiry.

Cheap Fares

DURING the recent public inquiry by the Charges Consultative Committee in connection with the level of railway charges during 1947, reference was made to the issue of cheap fare facilities, and varying views were expressed as to whether they resulted in increased or reduced revenue to the companies. The position, of course, is that there are a number of different considerations which arise in this connection. Before the war, cheap fares were primarily introduced with the object of retaining passenger traffic to the railway against the competition of private cars, motor coaches, and so on, or for the purpose of stimulating or creating new travel.

The cheap fares put into operation this year had a different object in view, however, which was to relieve the overcrowding of trains during peak hours by offering an inducement to passengers to travel at other times when accommodation was available. In this case a loss of revenue resulted from pas-

sengers altering the times of their journeys, but additional revenue was obtained from any passengers attracted to travel because of the new facilities. On the other hand, the introduction of cheap day facilities to market town and seaside resorts was intended to create new traffic and additional revenue, but the passenger vehicle shortage prevents very extensive facilities being given in this direction at present.

During the last six years or so, railways have experienced little competition from the use of private motor cars or passenger road services, but this position is altering steadily and may make it desirable for consideration to be given to the restoration of many of the facilities which were introduced originally to meet such competition, but had to be withdrawn during the war. Although the adoption of this course would initially reduce revenue because such cheap fares could be obtained by any existing passengers who desired to use them, the extent of the reduction is entirely problematical, and it would be offset, at least to some extent, by any additional passengers which the cheap fares secured. In normal circumstances, it would be possible to increase revenue by re-introducing the wide variety of pre-war cheap fare facilities which were designed to create additional traffic, but the present shortage of more than 5,000 coaches and the fact that the locomotive renewal programme is so much in arrear, presumably would limit the extent to which this could be done.

* * * *

Oil Fuel on British Railways

THE recent request of the Minister of Transport to the main-line railway companies to proceed as quickly as possible with the conversion of 1,217 locomotives from coal to oil burning, has directed attention once again to a method of firing used widely abroad, but which has never been adopted in this country either extensively or for any lengthy period. This has been natural in the past, when we were one of the great coal-producing countries of the world. Nevertheless, apart from the trials of which details were given to the Institution of Civil Engineers in 1878, British experience with oil-fired locomotives extends over a period of more than 50 years. It began on the Great Eastern Railway at Stratford in 1893, when the first British oil-fired locomotive was built by James Holden, and appropriately named *Petrolea*. The reason for the experiment then was that G.E.R. rolling stock was lighted by oil gas, and difficulty arose with the disposal of the oil waste into normal sewage channels; hence, it was decided to endeavour to dispose of it profitably as locomotive fuel. In all, about 60 locomotives were equipped similarly by the G.E.R. As soon as oil fuel had to be purchased from outside sources, the price rose, and, with the extended adoption of electric carriage lighting, the company's own supply of waste dropped.

In the U.S.A. and other oil-producing countries, the practice has become widespread, beginning in the U.S.A. about 1902, but Russia had about 100 locomotives fitted for burning petroleum refuse on the method of the British engineer, Thomas Urquhart, as early as 1884. In Great Britain, oil burning has not been regarded as an economic proposition during the present century, even in the first world war. During the prolonged coal strikes of 1912, 1921, and 1926, however, various railways introduced some oil-burning locomotives, principally on the Holden and Scarab systems.

The great strike of about 1,000,000 coal miners in 1912 lasted from February 29 until April 6, and one of the consequences was the development of oil as fuel on quite a number of British railways. On the Caledonian Railway, profiting by the experience gained by Holden on the Great Eastern Railway, McIntosh fitted two of his 4-4-0 express engines in March with oil-burning injectors; these were the first liquid-fuel burners in Scotland. The oil was stored in a cylindrical tank holding 520 gal. placed on the tender. E. Cusack, Locomotive Superintendent of the Midland Great Western Railway of Ireland, equipped a 4-4-0 locomotive with Holden oil-burning apparatus, and this engine worked successfully some of the heaviest trains to the west of Ireland. Previously in Ireland, Malcolm had equipped one of the compounds on the Northern Counties Railway, and Coey, one of the "305" class 4-4-0s on the Great Southern & Western Railway.

On the Midland Railway, in 1912, Henry Fowler fitted three engines for oil burning. One was a 4-4-0 express locomotive which was equipped with an inverted "Best" burner largely used in the U.S.A. Another was fitted with Holden burners. These engines worked fast express trains between Manchester, London, and Bristol. The Great Northern Railway fitted some of its locomotives with Holden oil burners and the Great Eastern Railway fired two of its engines with liquid fuel, but made arrangements to convert 75 from coal to oil, had the need arisen, using the fittings that had been kept in stock since the abandonment of the 1893 experiment. The G.W.R. conducted experiments with different kinds of patent fuel, and an 0-6-0 tank engine burned oil fuel on a layer of coke.

During the 1914 war, when difficulties with fuel for military railway needs in Mesopotamia had proved practically insurmountable, the Scarab system of oil burning (designed for a kitchen range) was adopted for locomotive boiler firing. In the Scarab burner the oil is atomised by a jet of air or steam. In May, 1920, the London & North Western Railway equipped its 4-4-0 "Precursor" class express passenger locomotive No. 2585 *Watt* with oil-burning apparatus designed by the Scarab Oil Burning Co. Ltd., and it subsequently ran a fairly extensive mileage with various classes of train on the L.N.W.R. A demonstration run, with the Chief Mechanical Engineers of many pre-grouping railways present, was made between Euston and Birmingham on September 1, 1920.

The 1921 coal strike from March 31 to July 1, when a State of Emergency was proclaimed, resulted in more widespread use of oil firing, involving some 116 engines, of which 75 were on the Great Eastern Railway, again using the old Holden equipment. On the Highland Railway one engine was equipped on the Scarab system. The Great Northern Railway also adopted the Scarab system and equipped a 0-8-2 tank engine, two six-coupled saddle-tank engines, and six main-line passenger engines. One of the Metropolitan Railway "H" class 4-4-4 tank locomotives also had Scarab apparatus.

On the London & South Western Railway seven engines were converted, six on the Scarab system and the seventh with the improved Holden apparatus. The Great Central Railway fitted two locomotives with the "Unolco" oil-burning apparatus developed by J. G. Robinson, Chief Mechanical Engineer; one was a 4-6-2 tank engine, and the other the 4-6-0 express locomotive *Sir Sam Fay*.

The North British Railway fitted an 0-6-0 tank engine with the improved Holden apparatus. On the Midland Railway, 41 engines were adopted for oil burning; 40 were express locomotives, and one a tank engine. These used an arrangement devised by Sir Henry Fowler, Chief Mechanical Engineer, and a burner which was a modification of the "Best" pattern. On the Great Northern Railway the Scarab apparatus was installed on four of Gresley's 2-6-0 engines of the "H3" class. These worked main-line trains between Kings Cross and Peterborough. They had a capacity for 1,000 gal. of oil. Sir Henry Fowler's apparatus was also applied to North Staffordshire Railway 0-6-2 tank engines.

During the prolonged coal stoppage of 1926, extending from early May until December 2, numbers of 4-6-0 and 4-4-0 passenger locomotives on the L.M.S.R. were adapted to burn oil fuel. The apparatus was similar to that used by the Midland Railway in 1921. The only alteration to the firebox was the addition of a firebrick lining beneath the brick arch, to protect the lower part of the tube plate, and a layer of broken firebrick on the firebars. The burner was inserted through the firebox door, and supplied with dry steam from a fitting on the back of the boiler. The initial pressure of about 35 lb. per sq. in. required to work the burner was raised by means of a wood fire in the firebox. On the Eastern and Western Sections of the Southern Railway, three 4-6-0 locomotives, eight 4-4-0s, and one 0-4-4 tank engine were converted to oil burning. A burner of the horizontal slit type was mounted at the mouth of the firebox, and the liquid fuel was sprayed under the brick arch on to a firebrick wall protecting the front of the firebox, and extending vertically from the grate to the springing of the ordinary brick arch. As was the case with the L.M.S.R. locomotives, a layer of broken firebrick was placed on the firebars. A few engines on the Great Eastern section of the L.N.E.R. were also adapted to burn liquid fuel.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Train Service Improvements in France

58, Rue de Courcelles,
Paris (8e). October 24

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR.—As from October 1, 1946, the maximum permissible speed on the principal lines of the S.N.C.F. (French National Railways Company) has been raised to 120 km.p.h. (74·6 m.p.h.), and greatly accelerated timings have been introduced. The following tables show, by comparison with the corresponding tables published in *The Railway Gazette* of October 26, 1945 (page 414), and July 5, 1946 (page 6), the progress made in a year. No further comment is necessary, except that the high standard of punctuality attained in 1939 is adhered to.

The fastest runs, with the different types of motive power used, are as follow:—

Type	Run	Distance (Miles)	Time (Hr. Min.)	Speed (M.p.h.)	Train No.
Railcar	Le Havre—Rouen	54·9	0·49	67·2	102 and 114
Electric trains	Angoulême—Poitiers	70·1	1·18	61·9	8
Steam trains	Paris—Laroche	96·3	1·40	57·8	33

TABLE A.—NON-STOP RUNS FROM PARIS

To	Distance (Miles)	No. of services daily	Fastest train (Hr. Min.)	Speed (M.p.h.)	Type (see notes)
Arras	119·4	19	1·53(1)	63·4	D
Le Havre	141·6	10	2·18(2)	61·5	B
Poitiers	206·3	14	3·26	60·1	E
Dijon	195·4	34	3·18	59·1	D
Le Mans	131·1	17	2·18	57·1	E
Nancy	219·1	17	3·51	56·9	B
Feignies	143·2	16	2·35(3)	55·5	S
Etaples	140·7	9	2·36	54·2	S
Vierzon	124·0	24	2·20(4)	53·1	E
Calais	184·4	13	3·36(5)	51·3	S
Limoges	248·3	10	4·53(6)	50·8	E

TABLE B.—LONG-DISTANCE RUNS FROM PARIS

To	Distance (Miles)	No. of services daily	Fastest train (Hr. Min.)	Speed (M.p.h.)	Type (see notes)
Bordeaux	329·2	12	6·05	59·1	E
Lyon	317·0	20	5·25	58·5	D
La Rochelle	296·0	6	5·15(7)	56·4	B & E
Strasbourg	311·4	14	5·40	55·0	B
Bayonne	482·5	8	7·18	51·9	E
Marseilles	535·8	16	10·28	51·2	S
Nice	675·0	11	14·30(8)	46·6	B & S
Toulouse	442·7	8	9·35	46·2	E
Cerbère	600·9	2	14·10	42·4	E & S

Notes

- S—Steam; E—Electric; D—3-car diesel-electric train; B—2-car Bugatti railcar
- (1) Continues to Lille, 156 miles, in 2 hr. 38 min.—59·2 m.p.h.
- (2) Includes 2-min. stop at Rouen
- (3) "North Star"
- (4) Includes 4-min. stop at Les Aubrais
- (5) "Golden Arrow"
- (6) Includes 5-min. stop at Chateauroux
- (7) Change at Poitiers
- (8) Change at Marseilles

Yours truly,
BARON VUILLET

Australian Gauge Standardisation

Rail Standardisation Division, Department of Transport,
14, McKillop Street, Melbourne, C.I.
Australia. September 24

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR.—In your issue of July 19 you reported upon the latest position with reference to the plan to standardise the railway gauges of Australia. It would appear from the article, that the proposed Bourke-Windorah-Dajarra alternative line through Queensland, together with the proposed Camooweal-Birdum line, had been agreed upon finally as the route to connect Darwin with the South.

This amended route was agreed to in principle by the Premiers' Conference in January, 1946, but further details were left for discussion at a meeting of Commonwealth and State Transport Ministers to be called subsequently. This meeting, and further conferences, were held, but general agreement between the Commonwealth and all States could not be reached. It was then decided by the Commonwealth to draw up an agreement with New South Wales, Victoria, and South Australia, which States were in accord with the Commonwealth proposals.

This agreement provided for the implementation of the works originally recommended under the "Clapp plan" in those three States. It provided, also, that, in conjunction with the "Clapp plan," the Commonwealth would implement a provision of the Northern Territory Acceptance Act, 1910, whereby it under-

took to connect Adelaide and Darwin by a railway line. This will involve the construction of a new line to link the existing railheads at Birdum and Alice Springs. As this will be a 4 ft. 8½ in. gauge line, it will necessitate the conversion of the existing Darwin-Birdum and Port Augusta-Alice Springs lines from 3 ft. 6 in. gauge to 4 ft. 8½ in. gauge.

The agreement entered into by the three States has been incorporated in a Commonwealth Act of Parliament which was passed recently. It is necessary for the State Governments of New South Wales, Victoria, and South Australia to ratify the agreement before standardisation works can begin in these States. This is expected to be done in the near future.

The route of the 4 ft. 8½ in. gauge connection between Fremantle, Perth, and Kalgoorlie has not yet been finalised, and is, of course, dependent upon whether Western Australia becomes a party to the scheme. The Commonwealth Government is still prepared to consider any proposals which the States of Queensland and Western Australia desire to submit.

Yours faithfully,
HAROLD W. CLAPP,
Director-General

Haifa East Station

P.O. Box 546,
Haifa. September 29

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR.—Doubtless you will have seen photographs of the damage done to Haifa East Station by sabotage a short time ago, but when I saw the enclosed postcard of the station in a shop window—not specially brought out for the occasion, but on one of the revolving stands of a generation or two ago—I thought you might like to have one. There appeared



Haifa East Station in its early days

to be an unlimited quantity, too, and they must be pre-last war, or at least during it, in Turkish times. The publisher's name on the back of the card is Emile J. Farsoun, Haifa. It is possible that you will have reproduced the view itself in the early days of the railway, of course. The main building has changed very little.

Yours truly,
A. L. JONES

[A view of Haifa East Station after the explosion of a mine on the platform was reproduced in the Overseas section of our October 18 issue.—Ed., R.G.]

Riding Qualities of Multiple-Unit Trains

18, Wheatsheaf Close,
Woking, Surrey. October 31

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR.—I was surprised to read that one of your correspondents claims that the Brighton electric sets ride better than the Portsmouth series. I have the doubtful pleasure of travelling in a Portsmouth set every day, and I have yet to note their good riding capabilities, even over lengths of main line recently laid in the latest manner. I therefore feel full of sympathy for travellers on the Brighton line. Perhaps, however, the Brighton advantage is because on the Portsmouth line there are 50 per cent. more motor coaches to a 12-car train; therefore, nearly 50 per cent. more passengers have an uncomfortable journey. The art of taking soup on a Portsmouth express needs considerable experience!

Yours faithfully,
J. B. LATHAM

The Scrap Heap

Driver of the "Royal Scot" from 1929 to 1944, Mr. Laurence Alfred Earl, of Wrotham Road, Camden Town, has retired after 45 years accident-free service, aged 65. Mr. Earl said he would cheerfully continue working trains for nothing, as the railway has been his great interest in life.
—From "The Evening News."

100 YEARS AGO

From THE RAILWAY TIMES, November 7, 1846

SHREWSBURY and CHESTER RAILWAY.—This Railway opens to the Public between RUABON and CHESTER on Wednesday, the 4th of November instant.

Trains leave Ruabon for Chester at 7 h. 30 m. and 9 h. 35 m. a.m., and at 12 h. 30 m., 4 h. 5 m., and 6 h. p.m.

Trains leave Chester for Ruabon at 9 h. 30 m. and 11 h. 30 m. a.m., and at 2 h. 35 m., 5 h. 10 m., and 8 h. 15 m. p.m.

FARES.

First-class, 3s. Second-class, 2s. 6d. Third-class, 1s. 5d. Day tickets, from Chester and Ruabon Stations:—First-class, 4s. 6d. Second-class, 3s. 9d.

Time tables may be had at the principal Stations.

ROBERT ROY, Secretary.

Chester, November 4, 1846.

G.W.R. Officers and R.T.Os



Sir JAMES MILNE, K.C.V.O., C.S.I.



Lt.-Col. FRANCIS WARD, O.B.E., M.C.



Mr. K. W. C. GRAND



Major TAHU RHODES, M.V.O.

Major The Hon. ARTHUR BAILIE

Major G. VAN-DER-NOOT



Major MARK DORMAN, M.C.



Capt. Sir ALFRED SLADE, Bt.

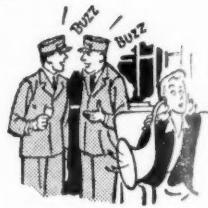
Reproduction from the menu at a luncheon given last year by Sir James Milne and the G.W.R. to "Our Old Friends, the Railway Transportation Officers" (see article on page 519)

IN PRAISE OF BRADSHAW

For the first time in history, "Bradshaw" missed a month. There is no October "Bradshaw." This is bad. "Bradshaw" is good prose, the right words used in the right order, no purple patches ("And as the setting sun gilds the roof of old St. Pancras, the 7.14, gliding like some beast of the jungle from platform 6, will nose its way into the mystery of dusk"), no vulgar neologisms, no slang, no bad grammar. It teaches more about writing than all the correspondence courses. And it is one of the few publications left which deal with facts and are not pure propaganda or uninstructed opinion.—*Beachcomber in the "Daily Express."*

Beware of Broadcasting!

Voice criticism in public is bad for Public Relations. If your remarks are about a customer, others who overhear will feel that similar things are said behind their backs. If your criticism concerns a railroad employee or department, it shakes the hearer's confidence.



[From "Company Manners" issued by the New York Central System]

SOUTHERN RAILWAY POLICY

Dieselisation and electrification, not nationalisation.

TEN-DOLLAR PULLMAN

When he travels by rail Mr. Truman has a private Pullman car, "Ferdinand Magellan," rebuilt co-operatively by various railway companies and presented to Mr. Roosevelt in 1942. The car has now been bought by the American Government at the purely nominal price of 10 dollars.

It is armour-plated and the windows are made of bullet-proof glass three inches thick. In the rear portion of the Pullman there is a lift, which was installed for Mr. Roosevelt's use.—From "The Daily Telegraph."

GETTING HIS TEETH INTO IT

Alexander Marshall, a crane driver at Portland railway station, Weymouth, succeeded recently in pulling with his teeth three goods wagons, weighing 19 tons, a distance of 50 ft. Marshall, who is 26 years old, 6 ft. 2 in. tall, and weighs 15 st., hooked his web belt to the coupling chain of the first wagon, held the belt between his teeth, set his face, and pulled. Four times the wagons moved about a foot and stopped, but at the fifth attempt he kept them on the move.

NAMED TRAINS IN ARGENTINA—I

Name	Railway	Scheduled run
El Cordobés	... Central Argent.	Buenos Aires—Cordoba
La Flecha	... " "	Buenos Aires—
El Rapido	... " "	Buenos Aires—Rosario
Rayo de Sol	... " "	Buenos Aires—Rosario
El Serrano	... " "	Buenos Aires—Cordoba
El Tucumano	... " "	Buenos Aires—Tucumán
El Cuyano	... B.A.P.R. ...	Buenos Aires—Mendoza
El Condor	... B.A. Western ...	Buenos Aires—Colonia Alvear
El Pampero	... " "	Buenos Aires—Toay
El Araucano	... B.A.G.S. ...	Buenos Aires—Zapala

TWOPENCE QUICKER

If you travel by Inner Circle from Paddington to Westminster it will cost you 6d.; but by the Bakerloo line the fare is only 4d.

At Paddington there are two Underground stations. It is better to choose the Bakerloo line, for it is also quicker. In the return direction you will be automatically charged 4d., the booking clerk assuming you will prefer the shorter way by Bakerloo, change at Charing Cross. The Inner Circle route is longer; Bakerloo cuts right across it.—From "The Evening Standard."

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The Army and the Railways—A Tribute

Co-operation between the railways and military movements staff in meeting the exceptional demands of wartime traffic

By Lt.-Colonel Francis Ward, O.B.E., M.C., Scots Guards; R.T.O., Charing Cross, August-November, 1939, and A.Q.M.G.(M.), London District, July, 1942, to December, 1946

ON January 1, 1947, I am due to retire from the Army for the second time; unfortunately, this occasion will involve also the severance of my seven years' connection with the British railways. During those years I have made many friends among railwaymen of all grades; I have also learned a lot from them, and, like most members of Movement Control in the Army, have acquired an immense admiration for their work. It is as an effort, however inadequate, to show my appreciation, that I offer these few reminiscences of those hectic, but inspiring times, as I saw them in London.

Before Movement Control in London District (London Area, as it then was) could be born successfully, a wet-nurse was essential. Choice automatically fell, in December, 1938, on Major J. M. Peto, Coldstream Guards (now Sir Michael Peto, Bt.). Besides having had wide Staff experience during and after the 1914-18 war, Major "Mike" Peto was notorious as a "Bradshaw-maniac," and the study of railway had been his lifelong hobby.

In February, 1939, nine officers were picked from the Regimental lists of the Household Brigade as prospective R.T.O.s at the principal London main-line termini. Lt.-Colonels Commanding Regiments of the Household Brigade very naturally required all their younger Reserve Officers for the many regimental appointments they would have to fill on mobilisation, and, therefore, recommended as future R.T.O.s only some of their Class II Reservists who had reached an age when they would soon be lost to their regiments in any case, but who still might be expected to be able to perform a sedentary (*sic*) job in the safety and comfort of "home"!

The officers originally picked, as well as many who followed them, were sometimes described as "the halt, the blind, and the maimed"; but although mostly of ripe age, and sometimes of ripe build, they were also ripe in experience—both of Service and civilian life. Most of them had also had considerable business experience. They soon proved themselves the ideal type for the responsible positions at London termini, where the traffic was entirely personnel—from Crowned heads to privates—and where Service experience, knowledge of the world, and common sense were definitely required, but technical matters could better be left to railwaymen.

"Doing Duty" from an Armchair

As an illustration of the indefatigable spirit of these "old gentlemen," it is on record that the Lt.-Colonel Commanding Scots Guards was delighted when he found one of his officers, then R.T.O. Paddington, who was occasionally incapacitated by gout, "doing duty" from an armchair planted on a platform trolley, which was drawn by a willing but perspiring female porter. Station officials and the public seemed equally appreciative of the "toughness" of both passenger and puller.

In May, 1939, the selected officers made a 4-day "recce" of their stations, got to

know their stationmasters, and earmarked possible R.T.O.s offices and billets. On August 23, 1939, priority telegrams ordered all prospective Movement Control Officers to report to their stations and to remain in plain clothes until further orders.

Accommodating the R.T.O. at Stations

Accommodation, both office and sleeping—for it was a 24-hour job—for the R.T.O. and his staff, presented a knotty problem. As no power existed which enabled the Army to requisition railway property, success or otherwise depended on the power of the R.T.O. to "wheedle" his stationmaster, and on the accommodation available. It is notorious that London termini are for the most part hopelessly out of date and grossly congested; it is equally apparent that stationmasters never would have reached that Napoleonic height if they were "easy meat." It is, therefore, a great tribute to the open-hearted co-operation shown from the start by most of the London stationmasters and railway officials that reasonable, and in a few cases even commodious accommodation was provided. Admittedly, the latter cases were possible only where certain railway office branches had been evacuated from London.

All the same, when R.T.O.s took up their action stations, their offices were still "to make" and they remained dependent on the goodwill of stationmasters and the railways for clearing them, cleaning them, furnishing, lighting, and heating them, and for providing telephones. Whatever the Paymaster may eventually have done in settling accounts, original R.T.O.s and H.Q. London District always will feel heavily indebted to the railways for the help they received from them, which alone enabled them to be more or less ready when war was declared and the Other Rank staffs arrived at stations.

A week was spent by R.T.O.s in plain clothes in making preparations for dealing with mobilisation, and in learning all they could from their railway mentors. Then, just before lunch on August 31, Major Rhodes, the S.R.T.O., telephoned the ominous message, "Get into uniform. Your staff will report this afternoon." Railway porters and staffs were, therefore, startled and momentarily awestruck when the homely gentlemen they were getting to know in easy-fitting flannel suits, appeared in snugly-fitting uniform, constricting Sam Brownes, medal-ribbons and—above all—in gold-braided caps. They knew then that war was indeed upon them!

Mobilisation went remarkably smoothly, although work was "round-the-clock" for R.T.O.s and railways. The B.E.F. began slipping across to France so quietly that no one knew when they went. To prevent staleness as a result of the long hours of work—6 a.m. to 1 a.m. was "normal"—in the cramped confinement of stations, some R.T.O.s resorted to early-morning P.T. The cleaners at Charing Cross in particular took a great delight in watching the elderly R.T.O. lead his staff in a 6 a.m. run three times round the concourse and then up and down the longest platform—ending in a free-for-all over the last 50

yards. It was a great satisfaction to the R.T.O. that he was never last—until it dawned on him that this might be due to the advantage of giving the word "Go"; or to the tact of his Irish Guards sergeant.

The first military special train to leave London—R221 at 2045 hr. on September 1—was such a "hush-hush" affair that it started from Cannon Street in the dead of night and went to Glasgow via Redhill, Guildford, and Reading. It carried a mixed bag for Gibraltar and Egypt, consisting of Foreign Office officials, diplomats, Egyptians, Red Cross nurses, and a large draft of the Welsh Guards; all of which parties were supposed to be segregated from each other. This isolation was largely defeated by the provision of vestibule stock for the train; and there was nothing "hush-hush" about the Welsh Guards brass band and glut of regimental officers which appeared to see it off.

War was declared at 1100 hr. on September 3, 1939, and at 1105 hr. the first "Alert" sounded. R.T.O. staffs donned steel helmets and gas respirators and helped station officials clear the public from under the glass roofs. Railway staffs took up their P.A.D. positions. The alert was a short one and proved afterwards to have been sounded as a practice; but it had the most beneficial effect of giving railway and military staffs respect for and confidence in each other.

Major Peto had instilled into prospective R.T.O.s from the very beginning that their most important duty of all was to establish cordial relationship with their stationmaster, as all their railway functions must be performed through him. This was the easiest instruction they ever had to obey, for the stationmasters of London seemed to take a delight in educating and helping their R.T.O.s, and in 99 per cent. of cases the two were soon as thick as thieves. This is shown by the fact that they can, and do, indulge in an occasional "leg-pull" at each other's expense.

A Story from Euston

R.T.O. Euston at one time had his night-duty quarters in a sleeping saloon which was stabled in the dark corner beyond the buffer stops of No. 15 platform. So comfortable was he that it became almost his permanent quarters, and several distinguished military travellers who arrived very late have been known to "stop the night" with him. One Sunday morning, when all was quiet and the R.T.O. soundly asleep in his luxurious bunk, Mr. Harrison, then stationmaster, had a bogie engine very gently backed up and coupled to the coach. At a signal from him it was started with a jerk. The R.T.O. awoke, thought he must be on his way to Willesden at least, so put his tousled head out of the window and yelled for someone to "stop the train"—while Mr. Harrison, hidden in an empty carriage on the opposite line, rocked with laughter. It was, later, as a most sincere tribute of our affection and respect for our friend Joe Harrison that six officers of Movement Control attended his funeral, and that we provided a Guard of Honour from the staff of all the Services at Euston.

Promotion from R.T.O., Charing Cross, to Staff-Captain at H.Q., London District, in November, 1939, widened my railway horizon and enlarged my circle of friends among the operating staffs. As London District dealt with all four main-line railways and the L.P.T.B., they did not have a Railway Liaison Officer at H.Q., but made all their bookings direct on the telephone—and very familiar those cheer-

ful and long-suffering voices "at the other end of the line" became! Q.M. London District confirmed these bookings in writing with the railways, but during the entire war the railways have never once confirmed a telephone booking in writing to Command. At that period trains were still plentiful and ran without enemy interference; it is still remarkable, and an amazing tribute to railway efficiency and accuracy, that the first 600 moves—both large and small—laid on with H.Q., London District, did not include a single instance of a railway mistake in bookings.

B.E.F. Leave Trains

After the despatch of the B.E.F. to France, and apart from the heavy freight maintenance programme, the next big movement undertaking was B.E.F. leave. This naturally affected all railways, but the chief burden fell on the Southern. Between December 18, 1939, when it opened, and the end of May, when it died a sudden death, Victoria and Waterloo received and returned a gross total of 1,430 trains carrying 421,707 personnel in the greatest comfort.

On the whole, the traffic ran remarkably smoothly, but the varying times, according to tides, at which returning "Leavites" travelled, occasioned considerable argument and headaches over the length of leave. This was specially the case when trains departed from Victoria about 2300 hr. and reached Dover at 00-something next morning. In fact, the embarkation staff themselves slipped up on one occasion and stamped the men's passes with a date that gave them in effect one day's leave too much. Needless to say, the "Leavites" who spotted this did not comment.

Dover themselves awoke to the mistake only in time to telephone London District 20 minutes before the first train was due at Victoria. Major Roderick and I were alone in the office. Major Roderick immediately telephoned the War Office for instructions, and then we dashed to Victoria. By the time we got there a message had been received from the Director of Movements that at any cost all passes must be re-tamped, as otherwise a most dangerous precedent would be created. Seven minutes remained.

Mr. Bridger, then stationmaster at Victoria, came to our aid, and between him and the R.T.O. seven date-stamps were produced and several pads. Luckily a barrier enclosed the platform involved, including the roadway on which buses were parked. Tables were placed inside the barrier so that the men had to file past them. Four stampers stood behind these with C.M.P. opposite, and another "team" was ready to deal with the bus loads. Major Roderick, a towering figure in his grey greatcoat, and Mr. Bridger, a corresponding Titan in black, stationed themselves just out side the barrier to quell any attempt at "rushing the gates." The scene was just set when the first train arrived and the avalanche was on us.

There were a few murmurs and growls—but the appearance of those grey and black "pillars" beyond the barrier was not encouraging. By stamping fast and furiously one train load was dealt with just in time to give a moment's rest to aching backs and arms before the next train arrived.

B.E.F. leave was stopped by the German break-through and was swiftly followed by the evacuation from Dunkirk and Operation "Dynamo"—one of, if not the greatest, railway triumphs of the war.

In the first phase of this operation, London District was directly involved only to the extent of organising and operating Addison Road, Kensington, as a refreshment halt for evacuation trains passing through London. Captain J. W. Dalton, Scots Guards, was R.T.O. in charge, and had a most strenuous time.

From May 28 trains arrived at irregular intervals, night and day, and went on doing so until June 4, although on each day after the fourth everybody thought "this must be the last." At one period, for 48 hours trains followed each other in almost non-stop procession every 20 minutes. The total dealt with was 127 in the eight days. Immediately a train pulled in, squads of Coldstreamers served every man with tea and a bag-meal. Packets of cigarettes, matches, chocolates, and biscuits were distributed. Postcards and telegraph forms were issued and collected for free despatch, although telegrams had to be withdrawn after a day or two as the Post Office was getting swamped. Wounded, aliens, and dogs which had been adopted and evacuated as pets were taken off the train and handed over to the appropriate authorities.

The passengers on the first trains were practically unarmed and in various stages of disarray; in fact, at least one officer was clad only in a bath towel and a pair of socks. Those few with razors in possession lent them to whole coach-loads, man by man, so that beards became fewer as the journey progressed. As day succeeded day, so the standard of passenger rose until in the last few trains almost every man was still properly equipped and had at least retained his rifle.

The Blitz hit London on the night of August 22-23, 1940, and for the next nine months London was subjected to an almost nightly bombardment, and the elderly gentlemen who had been given what were supposed to be suitably safe and "cushy" home jobs found themselves right in the bull's eye of the target. They shared this uncomfortable position, however, with the railwaymen (and women) whom they had now come to regard as colleagues, and many a friendship was made or cemented while squads of railmen and Servicemen combined to deal with ugly "incidents."

The high-spot of the first blitz—from the R.T.O.'s point of view—came on the night of May 10-11, 1941. St. Pancras was the first station to report damage, at 0045 hours—but happily without Movement staff casualties. Victoria was next victim, with several D.A. bombs—a large one 25 yd. from the R.T.O.'s office, which had to be evacuated. The most serious incident occurred at Kings Cross, where a direct hit wiped out the R.T.O.'s office at 0320 hours, killing six of the R.T.O.'s staff. The R.T.O. himself had a lucky escape as he had left the office only a moment before and was in the hotel porch 25 yd. away when the bomb fell. Waterloo was the only other station to suffer casualties among the Movement staff, the R.T.O.'s servant being killed and a sergeant so injured that he died later.

Service Travel at Home

The evacuation from Dunkirk, followed by the "Battle of Britain" and the blitz, made everybody invasion-conscious—invasion *inwards*, that is; and most elaborate plans were made to deal with it, plans which heavily involved the railways and Movement Control. But almost imperceptibly these plans and exercises changed, as time went on, from a defensive charac-

ter to an offensive one, leading up to the invasion of Africa and, finally, to the invasion of the Continent. That long-drawn-out period was, therefore, a time of tremendous growth in the Forces. This naturally led to an enormous increase in Service travel at home at a time when the railways were being subjected to great strain and heavy damage by the enemy.

During that period three censuses were taken at different times in London District, and the figures they disclose may be of interest to those railwaymen who were not then in a position to realise the amount of Service travel they were carrying. The numbers of Service personnel who departed from the London main-line termini in 24 hr. were:—

In July, 1941	79,641 daily
In September, 1942	113,822 "
In August, 1943	140,199 "

The stream went on for seven days a week and twelve months in the year, so that 365-times that last figure gives you the annual total of those Service men and women who passed through the bottleneck of London; the great majority of whom involved two stations and transit by L.P.T.B. or Service transport.

Total of Personnel Moved

That annual gross of 51,000,000 odd should explain why it was necessary to set up Service canteens, cloakrooms, and rest rooms at London termini, and thereby make heavy calls on the very limited accommodation at stations.

The prodigious effort of the railways in dealing with the movement of freight and personnel for the two great invasions is too long and complicated a story to go into here; it has, also, been told elsewhere. I have room only to touch on two more features. First—overseas leave. This was organised very much on the lines of B.E.F. leave, but was much larger and more complicated to deal with, owing to the varying length of the different sea passages involved, to shortage of shipping, and damage to ports. As in the previous operation, the British railways combined to give these homecoming men and women as quick and comfortable a journey as circumstances permitted. From January 1, 1945, when leave opened, to October 14, 1946, 3,990 special trains arrived at the three London termini involved (Victoria, Kings Cross, and Liverpool Street), bringing in 1,859,608 personnel; while 4,282 special trains left the same three stations, taking back 1,849,296 personnel.

The latest form of traffic has been that of Service families to the Continent. The figures are not heavy as railway figures go, but the elaborate arrangements made for the comfort of these women and children meant that fresh demands for amenities had to be made on the railways in general and the L.M.S.R. in particular, all of which have been answered in that ready spirit of co-operation we of the Army have learned to expect.

Do you wonder that I am not a little proud to have been connected with all this; or that I and some of my colleagues were touched and flattered when, soon after V.E. Day, Sir James Milne and the Great Western Railway gave a delightful luncheon party "To Our Old Friends, the Railway Transportation Officers"? We even enjoyed the libellous caricatures of ourselves—and our hosts—with which the menu was embellished.

I hope our friends of the railways will continue to recognise us when we have changed our Service caps for bowler hats. We shall not forget them.

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

SOUTH AFRICA

Improved Main-Line Services

Main-line passenger services have been improved further as from November 1. On the Johannesburg-Cape Town route, new fast passenger trains now operate on three days a week, performing the journey of 956 miles in just over 28 hr. In addition, the evening trains leaving Johannesburg at 10 p.m., and Cape Town at 7.25 p.m. run daily instead of on six days a week.

From November 25 the Port Elizabeth and East London portions of through trains from Johannesburg will run separately, and to faster schedules than at present. On the Johannesburg-Mossel Bay route, an additional train a week will operate in each direction, making the service four days weekly in place of the present three. In this case, too, the running time will be speeded up by between two and three hours. The substantial improvement in running times and in the services generally has been made possible by additions to engine power since the war. The United Kingdom has delivered 130 engines, including 90 class "15 F" main-line locomotives, during the last two years, and further deliveries are expected.

Historic Locomotive Restored

One of the oldest railway engines in South Africa, the *Natal*, was installed at Durban Station in September at an unveiling ceremony performed by Senator S. J. Smith, Mayor of Durban, during a visit to the city by the General Manager of Railways, Mr. W. M. Clark.

The *Natal* was imported in 1860, and worked on the line between the Point and the then growing town of Durban. In 1879 the engine was sold to a private purchaser, who intended using it to operate a sawmill at Port St. Johns. The engine was never used again, however, and eventually it became covered with silt by successive floods. In 1943 the remains of the *Natal* were located at Port St. Johns, and salvaged from the mud of a creek of the Umzimbu River. The engine has been rebuilt in the Durban railway workshops, and will henceforth stand in Durban Station as one of the most historic relics of bygone railway pioneering days in South Africa.

NEW SOUTH WALES

Large Building Programme

One of the largest building programmes ever undertaken by the New South Wales Government Railways is now under way. The railways are engaged in building air-conditioned main-line coaches, suburban electric rolling stock, steam and electric locomotives, refrigerator vans, louvre vans, open wagons, coal hoppers, and sheep and cattle wagons. Mr. J. Burn, Designing Engineer, and Mr. J. V. Green, General Freight and Passenger Agent, New South Wales Government Railways, recently made a tour of Europe, Canada, and the United States, to study the latest developments in railway operation, facilities, and equipment before proceeding with the modernisation programme.

Mr. Burn has written to Mr. G. E. McCoy, Assistant Chief of Car Equipment, Canadian National Railways, requesting

material samples, details, and specifications of C.N.R. refrigerator cars, saying: "You will be interested to know that after fully investigating the various refrigerator car propositions, we have decided that the overhead bunker type in use on the Canadian National Railways was the best."

UNITED STATES

Survey of Season Ticket Traffic

A survey by the *New York Herald Tribune* showed recently that the United States railroads carried more season ticket holders in and out of New York City during the first seven months of this year than in any comparable period in their history. The New York Central, running into Westchester, in the first seven months of 1941 carried 10,280,068 season ticket holders in and out of the city. For the first seven months of this year the figure was 15,640,855, an increase of 52 per cent. On the New York, New Haven & Hartford the figure for the first seven months of this year was 7,044,621, a rise of 43 per cent. over 1941. No figures were available for the Long Island Railroad, but the Pennsylvania, serving central New Jersey, reported a 1941 figure of 9,071,200 and a 1945 figure of 13,301,258. Officials said that this year there was a slight increase over 1945. The Central Railroad of New Jersey reported that season ticket holders for 1946 were slightly below the 1941 figure, but pointed out that in the early months of 1941 it was carrying New York war workers out of the city to New Jersey factories. This year there was a decrease in the number of season tickets from New York to New Jersey, and an increase from New Jersey to New York.

Explaining Rush-Hour Delays

Season ticket holders on the New York suburban lines of the New York, New Haven & Hartford have been issued by the company with an illustrated booklet explaining why rush-hour trains are subject to delay and overcrowding. It is explained that the number of season ticket holders carried into the Grand Central Station in the first seven months of 1946 was 43 per cent. greater than in the corresponding period of 1941, and 8 per cent. greater than last year. It is impracticable to add more coaches because trains already exceed the length of platforms at intermediate stations, and are of the maximum formation that can be accommodated by the terminal platforms. The density of traffic between 8 a.m. and 9.30 a.m. is as high as can be handled with safety. Three of the four tracks through the tunnel leading to the Grand Central Station are being used for inwards traffic in the morning rush hours.

ARGENTINA

Transport in the Five-Year Plan

President Perón told a press conference in Buenos Aires recently that the progressive electrification of Argentine railways was one of the chief aims of the Government under the Five-Year Plan which will begin on January 18, 1947.

In a later statement he amplified his remarks on the plans for transport, saying that the Government was considering the construction of feeder lines to the existing systems, and the construction of housing accommodation for the railway

staff. He added that care would be taken in building new branches to see that they did not duplicate, or compete with, existing routes. They would be feeder lines, aimed at cheapening transport and facilitating the movement of crops.

Air Transport Development

The President said that great strides would be made in air transport, to deal with which a Department of Aviation had been created. Plans were almost complete for extending air services to Ushuaia (the southernmost territory of Argentina) and to Rio Hondo. The Department of Aviation had divided the country into five zones, and was engaged in the construction of emergency landing fields in each zone. Plans for charter services feeding the existing routes were included in the Five-Year Plan, and the extension of air services abroad was being studied. The Government hoped in due course to see Argentine aircraft flying between Buenos Aires and Santiago de Chile; along the Pacific coast of South America to Los Angeles; on an additional service linking Buenos Aires, Rio de Janeiro, and New York; and operating with increased frequency between Buenos Aires and London.

EGYPT

Credits for New Wagons

At a meeting of the Railway Board held on September 27 under the chairmanship of Hanafy Mahmoud Pacha, Minister of Communications, it was decided to purchase new goods rolling stock, and credits were approved as follow: 300 open goods wagons (£204,000); 350 covered goods wagons (£215,950); 100 livestock wagons (£65,800); and 50 vegetable vans (£57,650). The construction of six oil storage tanks at a cost of £17,000 also was approved.

Kantara-Rafa Line

It is reported that the Egyptian Government has approached the British Embassy suggesting the formation of a committee to discuss terms for the purchase of the line running from Kantara East to Rafa, which, although in Egyptian territory, has been worked hitherto by the Palestine Railways.

ITALY

Railway Planning for Milan

A plan for the city and region of Milan, which has been worked out by a group of Italian town-planning experts, contains a number of proposals for the development of the railway system. According to the plan, certain suburban lines radiating from Milan are to be electrified, and linked with each other by tunnels, which also will cater for traffic within the city. The authors of the plan are concerned specially with the industrial and residential areas north of the town, and with a number of satellite towns which are to be linked to Milan by frequent services of fast electric trains. Thus, the railways from Monza, Lecco, Como, and Varese in the north are to be diverted into tunnels at the fringe of the built-up area, which will link them with certain existing lines in the south.

Other proposals concern the creation of a special "railway harbour" on the proposed Adria-Lugano Canal, which will pass south of the town. This harbour would have rail connections with the existing line at Lambrate. A second harbour, further west, is destined to be mainly a commercial port for the town. Nevertheless, this harbour also would be equipped with rail connections, communicating with the San Cristoforo Station.

A Suggested Administrative System for Colonial Transport—2*

Creation of decisive machinery for automatic conference and prompt action
By G. V. O. Bulkeley, C.B.E., M.I.Mech.E., formerly General Manager,
Nigerian Railway

THE report of the Royal Commission on Canadian Railways recommended the creation of an arbitral tribunal to carry out effectively the instructions for co-operation entrusted to a directorate. The meetings of the tribunal would be routine or called by any party.

It is clear that if the principle of grouped departments could be extended further, to embrace all activities in a dependency which fall under the group subject—in this case transport—at the same time providing a routine channel through and by which policy and defined administrative matters in respect of the grouped departments would be freely discussed and be subject to prompt decisions, the whole of the colony's transport equation should be satisfied.

Following these trains of thought in relation to the whole of the transport field, it is advocated that a post of Secretary for Transport† be created within the Government Secretariat in tropical dependencies, that this officer be the receptacle and focus for all transport issues in the country and be a member of the Executive Council.

The duties of this officer would fall into four sections:—

- (i) All transport correspondence.
- (ii) The conduct of transport advisory bodies.
- (iii) Agreed decisions arrived at through a routine consultative link between the Government and the transport departments.
- (iv) The transport affairs of the colony which fall outside the orbit of the state transport departments.

An object under item (iii) would be to abolish to the greatest possible extent any dilatory and unsatisfactory procedure under (i); also similar clerical activity as between the transport departments themselves. The precise form of the proposal under item (iii) will be elaborated subsequently.

Transport Advisory Board

A Transport Advisory Board on which all interests would be represented would assist the Secretary for Transport (who would be Chairman) as to matters of public interest referred to it under its published constitution. Other advisory bodies would be formed as desirable.

Although all matters of public interest should be open to free discussion and recommendation by a representative advisory board, decisions in respect of policy, development, finance and purchasing, rates, and labour affairs in respect of the transport departments require a mutually consultative channel through which the Government can act in direct contact with the heads of departments, and they with each other.

It is believed that this can be brought about smoothly and to the mutual benefit of all concerned by the establishment of a small "directive committee," of which the Secretary for Transport would be Chairman, and the Chief Secretary and the Financial Secretary (usually represented by their deputies) together with the heads of the railway, port and marine departments, the members; where port and marine formed one department, then the head of that department; where the Government operated a separate river service, then the

head of that would be a member. The heads of any co-related departments would be co-opted when required.

This will be recognised as being, in effect, the federation of those transport services (railway, port and marine, and in some cases road and inland waterway services) which are provided directly by the State. Federation does not aim at extinguishing the individuality of those federated. What it does effect is the creation of decisive machinery for automatic conference and prompt action, together with the avoidance of action by any member which might be harmful to, or non-co-operative with, the others.

It appears generally to be accepted that true co-ordination cannot be attained in any sphere of human activity without some form or degree of federation.

The Secretary for Transport would thus gather and centralise the whole of the transport affairs of the dependency in all their forms, and would federate those directly provided departmentally. In effecting either function he would bring to bear his exclusive knowledge of the other, thus presenting a complete picture in every direction for the information of the Governor and to the advantage of all concerned. He would not interfere in the operation of the State Transport Services, but would be available for consultation.

The recommendations of the Transport Advisory Board on matters referred to it, or raised by its members, would be minuted. The agreed minutes would be commented on by the Chairman—the Secretary for Transport—after discussion with the Chief and Financial Secretaries where necessary, and laid before the Governor who would review any matters of principle with the Secretary for Transport. Government would then decide at once as to matters not affecting the transport services, and act accordingly, advising the board.

In regard to state transport departments, defined matters—policy, development, finance and purchasing, rates and staff* issues—would be reviewed at meetings of

the Directive Committee, which would be held frequently. Should any matters concerning the departmental services have been minuted on at the previous meeting of the Transport Advisory Board, these minutes would be reviewed by the Committee and its comments recorded for the information of the Governor, who would decide. In general, the matters discussed by the Directive Committee would be those of departmental policy itemised in this paragraph. In respect of these, the decisions of the Committee would be final unless the personal assent of the Governor or the Home Government was essential. It would be the duty of the Secretary for Transport to ascertain the views of the Governor (or of the Governor-in-Council) as to any special matters which were coming before the Directive Committee and to acquaint that Committee so that a final decision might be arrived at by it.

Under the foregoing, correspondence between the Government and the transport department—and between themselves—would largely be obviated, and the regular routine change of views in Directive Committee between the heads of the transport departments, and between them and the Secretary for Transport and other Secretarial representatives, would be very beneficial. Any member should be entitled to call a meeting, and debate should be frank and free.

Responsibility for Services

It is again to be emphasised that under the administrative arrangements outlined in the foregoing, the heads of the transport department would retain complete responsibility for the daily operation of their respective services. For this is the field of immediate decision which must lie in the hands of one man, the Chief Executive of the department concerned. The aim would be a complete elimination of departmental exclusiveness and the exercise in a mutually helpful manner of the Government's ultimate responsibility for the State Transport Services. To quote Mr. Winston Churchill: "There is no more formidable or effective organisation than the union of four or five consenting minds, each of whom has at his disposal full powers for the discharge of business entrusted to them."

Unless it be the sole business of one senior officer of a Colonial Government to effect such cohesion, to assume chairmanship of boards and committees, to persevere in personal contact with all concerned in transport, both within and outside the Government, and to meet all those who are struggling with transport problems in various parts of the dependency—unless all this is one man's job it is likely to fail of coherent accomplishment, for every transport entity pulls for its own exclusive side.

In chart form the proposed Committee would function as under:—

DIRECTIVE COMMITTEE FOR STATE TRANSPORT SERVICES

Matters dealt with by the Committee	Personnel	Comment
Policy ...	Secretary for Transport	Chairman
Finance and purchasing	Chief Secretary	Generally represented by their deputies
Rates ...	Financial Secretary	
Staff and salaries	General Manager : Railway	
Labour affairs	Port Manager	
Development ...	Marine Superintendent (if separate department)	
	Co-opted as required—	
	Director of Public Works	
	Director of Agriculture	
	Provincial Officers when necessary and available	Representing road affairs

* Part I appeared in our issue dated October 25
† Or Commissioner for Transport

It is of interest to note that the system outlined in the foregoing closely follows in principle one of the accepted systems in company-owned railway administration, namely, that in which the General Manager is the responsible authority for the daily operation of the railway machine, and the policy of the railways as a business undertaking is decided—in consultation with him—by an executive council responsible to the source of the capital invested.

Suggested Organisation

It is suggested that an analysis of the administrative arrangements which have been discussed favours their adoption.

(i) The organisation would provide, within the ordinary framework of Colonial Government, for a principal transport officer who would:

(a) be in constant personal touch with the Chief and Financial Secretaries, have direct access to the Governor and be a Member of the Executive Council of the Dependency;

(b) be in constant personal touch with the heads of State Transport Departments;

(c) make regular visits to the provinces and review their transport problems directly with their administrative officers;

(d) discuss trading transport issues directly with the commercial and shipping interests;

(e) bring together the transport affairs of the Dependency as a related whole.

(ii) It would relieve the Chief Secretary entirely of correspondence on transport issues and technicalities with departments and the public.

(iii) It would afford the transport departments and the Advisory Board direct representation on the Executive Council of the colony.

(iv) It would not take away any personal managerial authority from the heads of the transport departments: neither would it effect any interference with their operational direction.

(v) It would enable most administrative decisions in regard to the transport departments on matters contained within the defined schedule to be arrived at orally by the Directive Committee, in whose deliberations the heads of the transport departments would participate. Their authority for action would be the minutes of the Committee.

(vi) It would provide the Government of the colony with one authoritative channel through which every transport matter arising in the colony would pass, receiving the impact of all interested opinion before actually reaching the desk of the Governor.

(vii) It would ensure that the advice and co-operation of provincial administrative officers was sought as to all labour issues, and particularly where mass labour difficulties were being encountered in the transport departments.

(viii) It would effect a compact relationship between the central administration of the colony and the officers directly responsible for transport operation: a relationship in which knowledge of transport was diffused (as in the case of a Board of directors), and in which the special insight into the colony's affairs possessed by the Chief Secretary and the Financial Secretary was constantly used.

It would be essential to the scheme that a transport section be established within the Secretariat organisation and be presided over by a senior officer, whose title would be that of Secretary for Transport, and who would rank with the Financial Secretary after the Chief Secretary.

The occupant of the post should be a man possessing experience in the economics of transport activities. If he has been associated with railway, port and marine affairs this would be an advantage. It would also appear desirable that the Secretary for Transport should have had such experience in the senior executive office of a large transport undertaking as enabled him readily to grasp the many technical points which constantly arise in relation to transport by land, water and air.

Finally, the man holding the senior post should be one who is naturally sympathetic with, and interested in, the development in native peoples (the problems of transport in tropical dependencies, like medical and educational development, being a national requirement affecting producer and trader alike). An essential of transport administration is recognition of its catholicity and the avoidance of bias. A Secretary for Transport should be a potent vehicle for the dissemination of the long-range view.

In a recent discussion at the Institute of Transport the matter was put well by a speaker who said: "There is scope for a new type of administrator which scarcely exists as yet—a type familiar with the operating problems and technique of all forms of transport, but not exclusively brought up in the traditions of any one service."

In a discussion such as this, the rival merits of centralisation and decentralisation (those magic words) will be brought out of the cupboard. In reality they mean very little except "to point a moral or adorn a tale." The chief executive of a railway may point with pride at the achievements of decentralisation on his system, at the same time urging centralisation in the shape of placing port and marine affairs under his jurisdiction. In all probability the truth is that 100 per cent. centralisation or decentralisation is seldom found in any organisation.

Under sectionalisation, each transport service receives the substantial benefit of managerial direction under an officer able to devote the whole of his time and thought to that particular section in the transport chain, in which he becomes a specialist. Any danger of departmentalism under sectionalisation is avoided entirely where departmental heads meet frequently in council, as would be the case in the Directive Committee advocated in the foregoing.

In small dependencies the organisation herein proposed could be scaled down readily, retaining the vital principles.

Where several dependencies were contiguous or otherwise naturally grouped, it is suggested that each Directive Committee, while dealing directly with day-to-day matters within its own area, should, in addition and expansively, take on a regional character reviewing broad issues of policy and standardisation relative to the group. An annual general meeting of the Secretaries for Transport would effect decisions in these respects.

Such annual meetings would have their agenda agreed on well in advance and detailed preparation made in each dependency with complete exchange of memoranda; the aim would be to make it possible for decisions to be arrived at without taking heads of departments away from their posts to attend. Thus, three or four men empowered to make decisions would meet, rather than a Sanhedrim which probably would accomplish nothing.

It is of interest here to note recent recommendations in respect of the state rail-

ways in two of the large dominions of the British Commonwealth. The Chief Executive of the Administration which controls and operates the railway, port, marine, and air services of South Africa has recommended the establishment of a directorate on which the services would be adequately represented. In Canada, the Royal Commission which recently reviewed railway affairs in the dominion recommended an arbitral tribunal whose function it would be to carry into effect the decisions of a Directorate. Although it is not suggested that the precise transport problems of these two great dominions are related to those of the tropical dependencies, it is of interest to note that the principle of an executive directive body representative of the interests directly effected is no new conception.

Four Stages of the Problem

The successive steps by which the Governments of tropical dependencies have so far carried their transport problem, which picture the situation and are envisaged as future policy, may be stated as follows:—

Stage 1.—Unrestricted competition between all forms of transport without any regulation in respect of operating, maintenance, or conditions of labour.

Stage 2.—As under 1 in respect of unrestricted competition, but with piecemeal regulation applied to railways, road traffic, inland waterways, and shipping.

Stage 3.—As under 2, but with additional constructive regulation in respect of operating, maintenance, and conditions of labour, also under some planned form of co-operation in process of being progressively worked out as the Dependencies are able to afford it.

Stage 4.—Equalised regulation for all forms of transport under planned co-operation and shared financial gain as represented by equal opportunity to earn fair compensation for the services rendered.

Stage 3 has been reached already, and its development has to be faced and kept pace with. The beginnings of Stage 4 are not far off and will become pressing. It is submitted that further progress in the transport affairs of tropical dependencies cannot be satisfactorily achieved under the purely departmental system, which has now served its purpose.

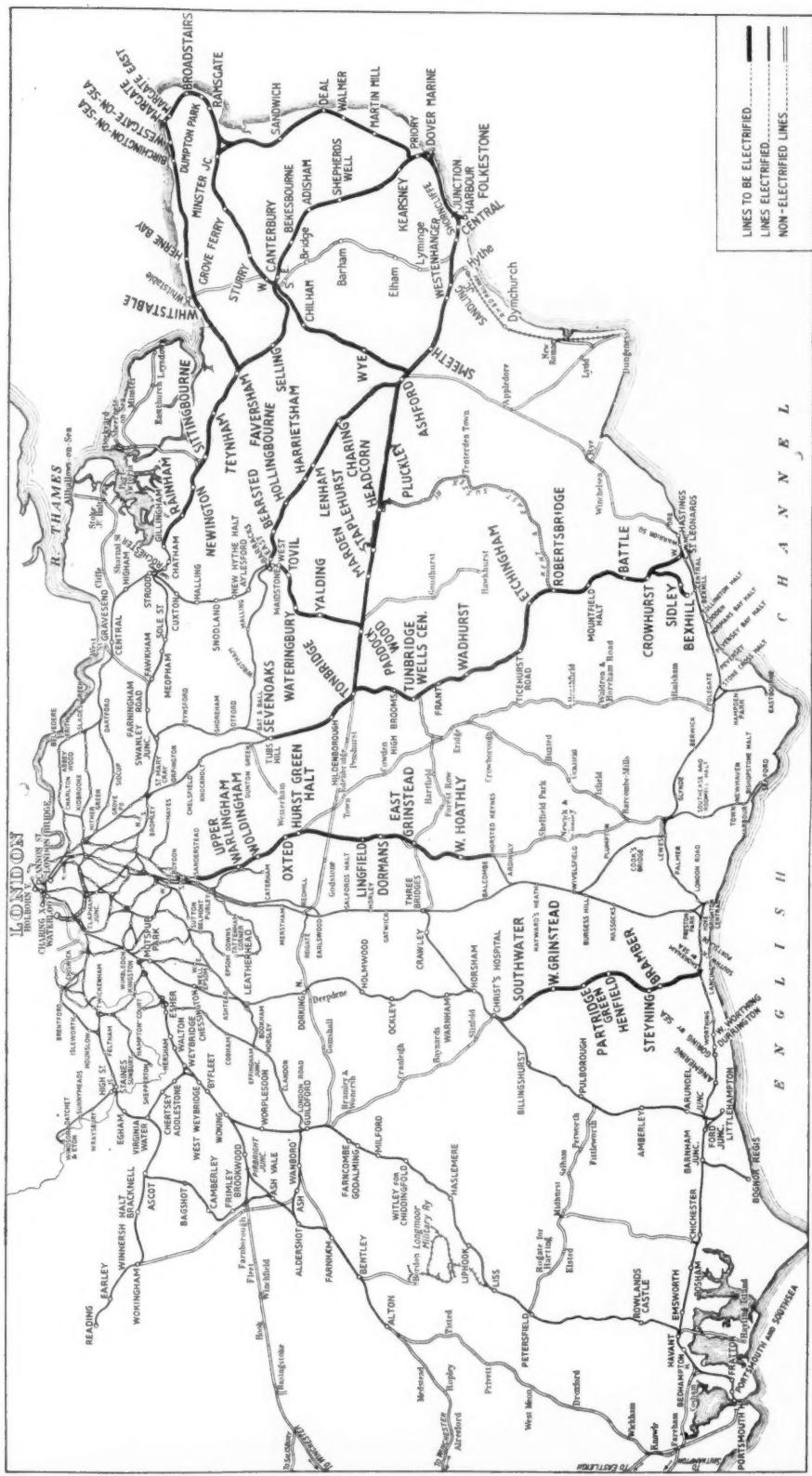
(Concluded)

G.W.R. COAL-SAVING CAMPAIGN.—To assist the Government campaign for a ten per cent. saving in coal, the Great Western Railway has brought out a fuel-saving poster which is being displayed in offices, workshops, depots, and all other places on the system where electricity, coal, or gas is used.

COOK'S TRAVEL COURSE.—A mixed class of young students will inaugurate next month at the headquarters of Thos. Cook & Son Ltd., a course embracing the rudiments of travel in all its aspects, from selling a railway ticket across the counter to organising a world tour. The new school, which is part of the firm's plan to meet the growing demand for travel service, will be equipped as a typical booking hall—so that practical instruction may be given in every branch. A cinematograph will be used for demonstration, and the course will cover visits to the chief London travel termini, including airports and docks. A special feature will be the inclusion of women students to train as booking-hall clerks—a departure from former policy. Ex-service men of the firm's staff also will avail themselves of the course.

November 8, 1946

Southern Railway £15,000,000 Electrification and Diesel Traction Scheme



Map showing the present extent of the Southern Railway electrified system and the lines to be electrified under the scheme announced last week. The lines shown as "non-electrified" will in general be operated by diesel-electric locomotives. The principal stations affected by the new electrification scheme are shown in heavy lettering (see article on opposite page and editorial article on page 515).

Southern Railway £15,000,000 Electrification and Diesel Traction Plans

Elimination of steam traction in south-eastern England



Sir Eustace Missenden, General Manager, Southern Railway, addressing a press conference at Charing Cross Hotel on October 31

ON Thursday last, Sir Eustace Missenden, General Manager, Southern Railway stated that the board of the Southern Railway Company had approved large-scale plans for the extension of electrification and for the adoption of diesel traction for subsidiary services.

The programme of extensions, which, at present price levels, is estimated to cost £15,000,000, will affect train services throughout south-east England, and will result in the elimination of steam locomotives from the lines of the former London Brighton & South Coast and South Eastern & Chatham Railways.

Time Factor

The time which will elapse before conversion is completed, is dependent directly on availability of material and labour, but it is hoped that the work will be completed by 1955. With full priority for labour and materials it is estimated that the project could be accomplished in five years.

The proposals involve the further conversion to electric traction of 284 route-miles (610 miles of single-line track, including sidings) on the main lines to the Kent coast and on secondary routes to Brighton. These routes are:

Gillingham to Margate and Ramsgate, with the secondary line from Faversham via Canterbury to Dover.

Sevenoaks via Tonbridge, and Ashford to Folkestone, Dover, Deal, Sandwich, and Ramsgate, with the secondary lines from Maidstone to Ashford, Maidstone to Paddock Wood, and Ashford via Canterbury to Ramsgate.

Tunbridge via Tunbridge Wells to Bexhill and Hastings.

The secondary line to Haywards Heath and Brighton from South Croydon via Oxted, East Grinstead, and Horsted Keynes.

The secondary line from Horsham via Steyning to Shoreham.

All passenger and freight trains in the counties of Kent, Surrey, and Sussex eventually will be worked by electric traction, either by multiple-unit electric stock, or

trains hauled by electric locomotives. Diesel-electric traction will be used for feeder services and local goods trains. Steam train services to and from London termini will be withdrawn.

At present, the Southern Railway owns over 1,800 steam locomotives. When conversion is complete, the number will be reduced to less than 800. The schemes of electrification already in operation on the Southern Railway are estimated to effect a saving of some 400,000 tons of coal a year.

The extensions which have just been announced, together with the adoption of diesel traction, are expected to result in a further saving of 300,000 tons of coal each year.

The Southern Railway route mileage is 2,156, of which 714 miles, or nearly one-third of the total system, are already electrified. The mileage of electrified single-line track, including sidings, is 1,777. Of the total train mileage, 55 per cent. at present is worked electrically, and the remaining 45 per cent. by steam.

The new programme will require for its operation 200 diesel-electric locomotives, and 150 electric locomotives. When it is complete, the division of trains operated will be in the ratio approximately of 70 multiple-unit trains to 30 trains hauled by electric locomotive or diesel-electric locomotive.

Approximately 60 sub-stations will be involved in the extension of electrification, and the return on the capital involved in the project is estimated at six per cent.

Locomotive Design

The electric locomotives to be used will be generally similar to those described and illustrated in our January 23, 1942, issue. Tests have been carried out with these locomotives, particularly with goods trains, for a considerable period, and the results achieved as a result of these tests have been highly satisfactory.

The diesel locomotives to be used for shunting and other subsidiary services will be of from 400-600 h.p.

Sir Eustace Missenden also stated that

conversations would take place with manufacturers as to the design of a main-line diesel-electric locomotive for use on the Western Section of the Southern Railway.

It is expected that one of the major results of the measures to be taken will be the achievement of a reduction and a greater uniformity in headway, and an overall speeding up of services in the area affected.

Considerable research was undertaken by the Southern Railway before the present plan was put forward, and a special mission of officers made visits to the United States of America and to the Continent to study diesel traction.

This delegation, on whose report the present scheme largely is based, consisted of Mr. J. L. Harrington, General Assistant to the General Manager, Mr. S. A. Fitch, Assistant Superintendent of Operation, Mr. M. S. Hatchell, Assistant to the Chief Mechanical Engineer, and Mr. S. B. Warder, New Works Assistant to the Chief Electrical Engineer.

Fluorescent Lighting on Glasgow Underground

SOME months ago, Osram fluorescent lamps were installed in an experimental Underground coach of the London Passenger Transport Board. These were operated from a 1,200-cycle, a.c. source supplied by a motor-alternator driven off the 600-V. traction supply. The installation was described in our June 14 issue.

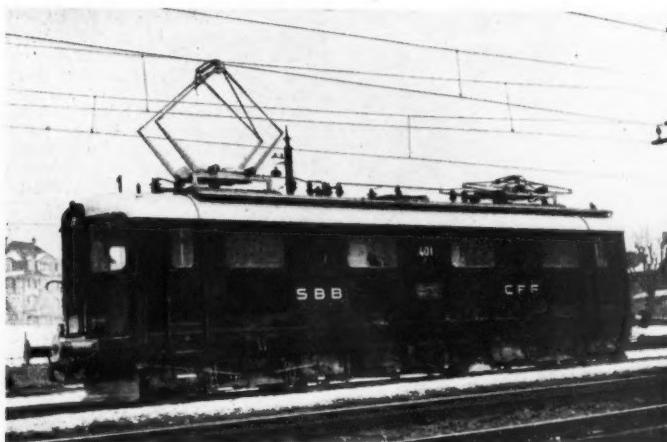
Recently, a similar experiment has been carried out on the Glasgow underground railway by the Transport Department of the City Corporation. The Glasgow installation was simplified by the fact that a 250-V. a.c. supply for lighting is available from tee irons which run throughout the whole length of the underground network. In addition, there is an emergency circuit of 500 to 600 V. d.c. It was possible, therefore, to use standard Osram fluorescent lamps, without the necessity of installing special equipment to provide the current.

The installation was carried out by engineers of the Glasgow Transport Department, under the direction of Mr. E. R. L. Fitzpayne, B.Sc., M.I.E.E., M.I.A.E., and in consultation with the Glasgow branch of the General Electric Co. Ltd. The complete scheme involved the fitting of two coaches (a motor coach and a trailer coach) with 28 4-ft. fluorescent lamps of the daylight type, mounted in standard G.E.C. fittings. The large area, low surface brightness, and cool burning of the Osram fluorescent lamp make it eminently suitable for lighting schemes such as this, where mounting height is restricted. The surface brightness is sufficiently low to allow the lamps to be placed where required without being screened, and the heat they generate is much lower than that of a tungsten lamp installation of equivalent light output. This, particularly, is a valuable feature from the passengers' point of view, especially during rush-hour periods when crowding is prevalent.

Each side of the two coaches is fitted with seven lamps mounted about 6 ft. 6 in. from the floor. The total lamp wattage per coach is 560, and the lighting intensity provided is approximately 22 lumens per sq. ft. This compares with 7 lumens per sq. ft. provided by the original tungsten lamp installation, which had a total wattage per coach of 640.

Swiss Lightweight Electric Locomotives

A new design for high-speed inter-city expresses



THE first of a series of 26 light high-speed electric locomotives of a new type was placed in service on the Geneva-Berne-Zürich main line of the Swiss Federal Railways on February 1. The locomotives are classified as "Re 4/4" (express electric, four driving axles in a total of four axles), and will haul lightweight inter-city expresses. They are for operation on the Swiss standard 15,000-volt, 16½ cycles, single-phase system. A programme of extending the fast inter-city trains and providing them with motive power capable of an increased average speed of 125 km. (77.7 m.) p.h. had to be shelved during the war, but the first locomotives were ordered in 1943. A total of six will be available in April this year, when the accelerated schedules will be introduced, and nine more will be de-

livered at intervals up to the end of the year.

The new locomotive weighs 56 tonnes (55 tons 3 cwt.); this means a saving of some 40 tonnes (39 tons 8 cwt.) compared with the 95-tonne locomotives of the "Ae 3/6" class which haul the lightweight fast trains at present. The "Ae 3/6" locomotives were built between 1925 and 1929, and have a one-hour rating of 2,100 h.p. The one-hour rating of the new locomotive is 2,240 h.p. Since the adhesive weight is about the same in both types, their tractive effort is the same, namely, 30,800 lb. maximum at the wheel tread, or a one-hour rating of 17,688 lb. The "Re 4/4" locomotives will be able to haul lightweight trains totalling 300 to 350 tonnes composed of an average of ten light-steel coaches, at speeds

attained so far only by high-speed rail-cars when travelling light.

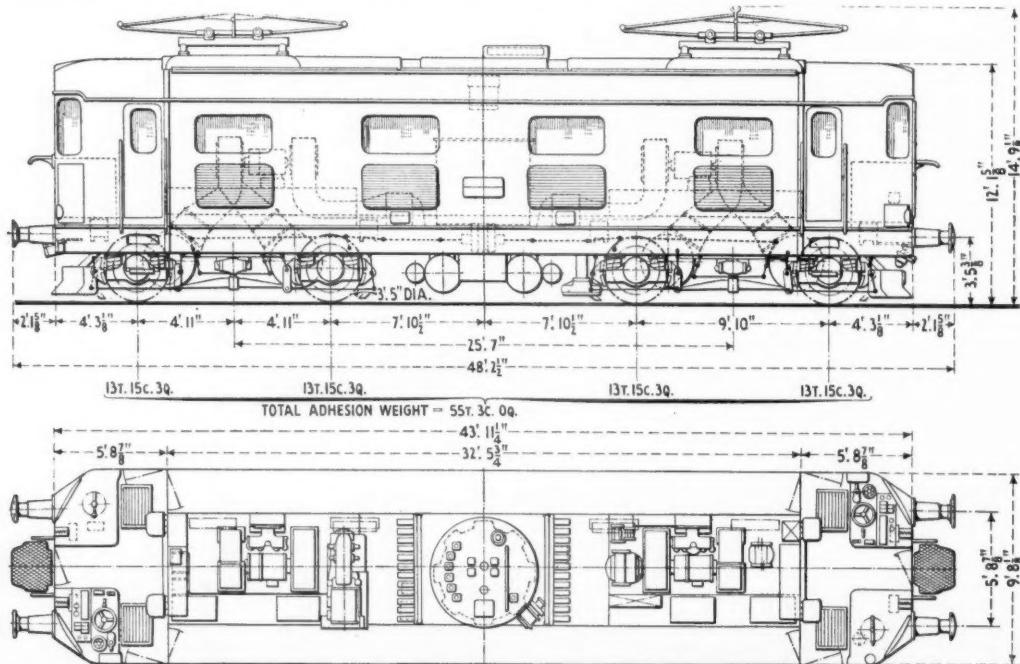
An outstanding advantage of the "Re 4/4" locomotive is its ability to negotiate curves at high speeds because of its reduced axle load of only 14 tonnes, as against 18 to 20 tonnes in the "Ae 3/6" locomotives. This will enable the speed of 40.4 m.p.h. maintained on the sharpest curves of the Gotthard line to be increased to 46.6 m.p.h., while the standard speed of 77.7 m.p.h. will be maintained over all curves having a radius of more than 41 ch. 16 ft. The weight per horsepower of the locomotive has been reduced from 99 lb. in the older type to 55 lb. Considerable saving has been effected by the elimination of carrying axles.

Weight Reduced

Two traction motors are mounted on each four-wheel bogie, and operate through a flexible drive. The motors have a one-hour rating of 580 h.p. and run at 1,860 r.p.m. when the locomotive is at full speed. Extensive use of welding has been made in the construction of the bogies in order to reduce weight.

The body of the locomotive is of all-steel construction. Light metals and alloys have been used only for such parts as are not liable to appreciable mechanical stress. The contour of the body has been designed to conform with the coaches of the lightweight trains. At each end of the locomotive there is a driver's cab, and both are connected by means of a corridor which is wholly separated from the compartments alongside it containing the electrical apparatus. Each side wall has four large windows with safety-glass panes, and the same type of glass has been used also for the windows of the side doors of the driver's cabs, as well as for the front and rear windows. Electric heating and pneumatic window wipers are provided for the windows at the ends of the locomotive.

The transformer in the central machinery compartment is of armoured construction.



Dimensions and interior arrangements of Swiss "Re 4/4" locomotive

tion, with a multi-blade radial core, and is more compact and lighter than previous types. The main high-tension circuit-breaker is operated by compressed air, and the contactor control is electro-pneumatic, the necessary voltages being taken from a secondary of the transformer.

Remote control and multiple control are also fitted, enabling two or more of these locomotives coupled together to be operated by one driver from any of the cabs. Furthermore, the remote control

arrangements will make it possible to work push-pull trains, with the locomotive propelling the coaches in one direction of running.

The locomotive is fitted with a quick-acting compressed-air brake, specially suited for high speeds, and also with regenerative braking. The safety devices include a dead-man's handle and automatic train stop.

The first "Re 4/4" locomotive has been built by four concerns in association,

namely: the Swiss Locomotive & Machine Works, Winterthur; Brown Boveri et Cie, Baden; Ateliers de Construction Oerlikon; and the Société Anonyme des Ateliers de Sécheron, Geneva.

The "Re 4/4" locomotives now building or on order will be erected in the shops of Sécheron (Geneva) and of Oerlikon Limited (Oerlikon), but additional locomotives of this type which may be ordered will also be erected at the Brown Boveri works.

French Railway Electrification Plans

Extensive ten-year programme undertaken with a view to saving fuel

FRENCH railway reconstruction plans centre in the first place on further electrification, due to the need for conserving coal. Accordingly, the French National Railways Company (S.N.C.F.) in the next ten years plans to electrify the following lines:—

1. Paris to Marseilles, in two stages (Paris—Lyons and Lyons—Marseilles).
2. Branches of Paris—Marseilles main line from Macon to Caloz, and from Lyons to Geneva.
3. Bordeaux to Montauban, and Sète to Nîmes, thus providing electric traction throughout from Bordeaux to Marseilles.
4. The southern part of the Paris Grande Ceinture (Outer Circle), from Versailles to Sucy, via Massy, Juvisy, Villejuif and Valenton.
5. Paris south-eastern suburban lines (included in the Paris—Lyons scheme).
6. The Paris northern suburban lines.
7. Extension of western suburban lines.

In conjunction with the Paris Metropolitan Company, the S.N.C.F. plans to electrify the line from Vincennes and Reuilly to Sucy-Bonneuil (eventually to Boissy-St. Léger), this line to be operated as part of the Metropolitan system, like the Seine line. This extensive electrification programme is considered well within the capacity of the French electric traction industry, which between 1928 and 1938 had equipped 2,123 km. (1,316 miles) of line. The saving of coal is considered sufficient to justify the plan from the economic and financial points of view. The accompanying diagram and some particulars of the programme appeared recently in our French contemporary, *La Route du Rail*.

The S.N.C.F. intends to retain the 1,500-volt d.c. supply system, despite certain advantages of 5,000-volt single-phase and 3,000-volt d.c. supplies, which have been applied extensively in other countries. The existence of two different electrification systems in France would involve operating difficulties which could not be tolerated. Work already is at an advanced stage in the Paris southern suburbs, where the electrification is due to be completed this year; and also on the Sète-Nîmes line, which should be finished next summer. Because of the magnitude of the work, electrification of the Paris-Lyons line will not be finished before 1950.

As the programme calls for increased hydro-electric power supplies, the S.N.C.F. is carrying out additional work in the Pyrenees valleys of the Têt and Ossau d'Aure, constructing a large power station at Bort on the Upper Dordogne, and extending the Arve Valley installation in the French Alps. The annual output thus will be raised from 1,100 million to about 1,900 million kWh. As a 25 per cent. shareholder in the Rhône National Company, the S.N.C.F. also will have a priority claim to part of the power output at the Genissat works.

Steam locomotives, which numbered

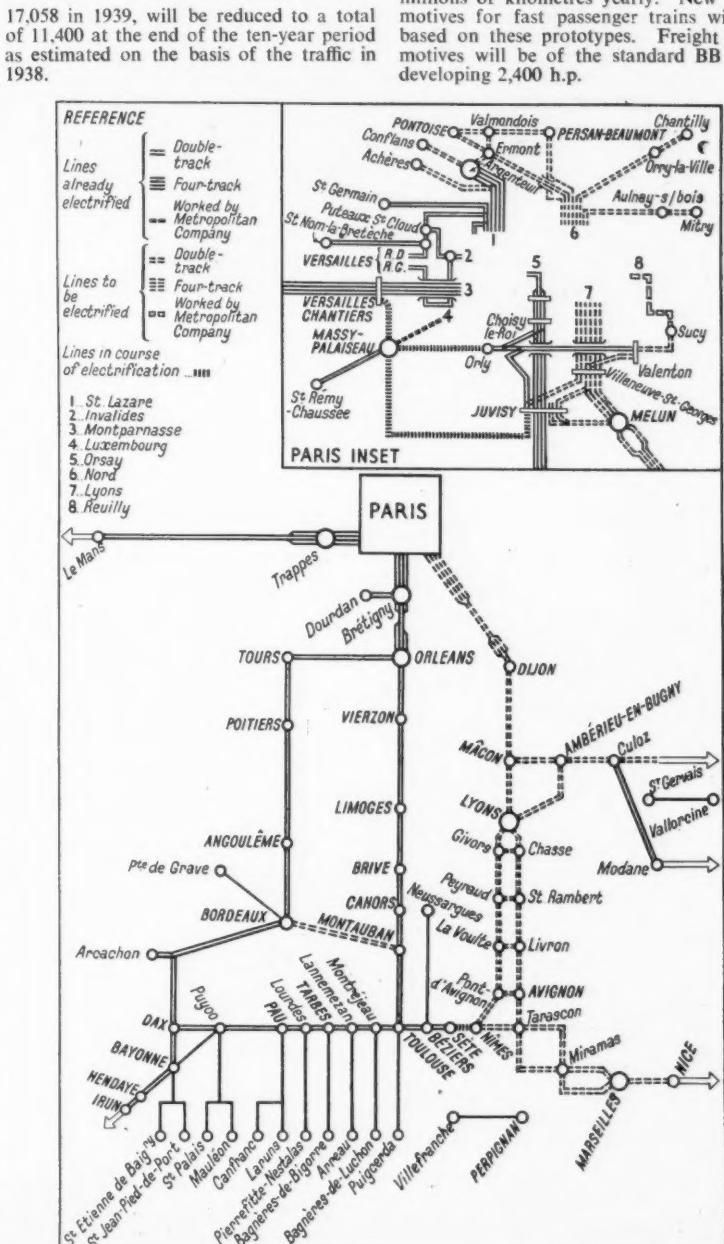


Diagram of French National Railways distribution projects

The Teledetector Car

A lightweight self-propelled car for detecting and recording on both tape and rail the positions of fissures and other rail defects



A DEVICE now being produced commercially in America is known as a Teledetector car, and is a small self-contained and self-propelled four-wheel trolley, or rail inspection car. It can be removed from the track at short notice by two men, and it has an enclosed body. To reduce weight, the vehicle itself tests only one rail at a time for detecting and recording transverse rail fissures, but the system of detection can be adapted to test both rails.

Rail flaws are detected by small air-core pick-up coils working in a trailing, sustained, magnetic field. It is claimed that fissures as small as 15 per cent. and other types of flaw throughout the length of a rail to within 3 in. of the ends can be spotted and recorded by it. An automatic paint gun puts a spot of paint on the faulty rail within an inch of the blemish. Its operation is not interfered with by fishplates, bolt holes, high spikes, or other track fastenings, and it can be worked over points, crossings, and check rails.

A Multi-Pole Magnet Unit

The magnetic field in the rail head is set up by a multi-pole magnet unit enclosed in a separate casing. This runs on small rollers and is pushed along one rail ahead of the car, to which it can be attached by any one of four brackets fixed at the four corners of the car. In this way, therefore, either rail may be tested when running in either direction.

Two pick-up coils also are provided, one suspended over each rail between the wheels of the car and just clearing the rail table by $\frac{1}{8}$ in. Recording is made upon a moving tape and by the paint gun, and also by a standard voltage-drop hand-testing apparatus. Of the four recording pens, one records the positions of the rail joints and the other three record defects in the rail head. A section of the recording tape is reproduced.

The testing equipment is powered by a 3½-kW. generator, driven by an 11-h.p. petrol motor, which also (a) supplies power to a constant-speed electric motor

for driving the car when on test at 5 m.p.h., or (b) propels the car through transmission and chain drive at 25 m.p.h. when not testing. The car body, of magnesium alloy, is enclosed fully with plexiglass.

One of the most ingenious features of the Teledetector car is, however, the method by which it can be removed rapidly from the rails. The power units are mounted in an enclosed casing projecting from one side of the car. Beneath the casing is a pair of rubber-tyred wheels, fixed at right angles to the track, which can be lowered to touch the ground. On the opposite side of the car a pair of extension handles enable the vehicle to be lifted sideways, throwing the weight on to the rubber-tyred wheels, and run off the track transversely like a wheelbarrow. As the power units—the heaviest part of the equipment—are immediately over the rubber-tyred wheels, a negligible proportion of their weight has to be lifted by the two-men crew. A lift of only 250 lb. has to be exerted on the handles.

If it is desired to test both rails simultaneously, Teledetector equipment with duplicate magnetising units and pick-up coils can be fitted to any motor inspection car.

As heavier magnetising apparatus then can be used, increased efficiency, permitting the detection of 10 per cent. or even

smaller fissures, is claimed. Alternatively, two Teledetector cars can be run together, about ten rail lengths apart, one testing each rail, without appreciable addition to the track occupation. In these days of increasing loads and traffic, and not infrequent rail fractures because of fissures, this light equipment for detection—as opposed to the elaborate and costly Sperry car—seems to have a future if all the advantages and efficiency claimed for it can stand the test of constant daily use. It is marketed by Teledetector Inc., Chicago.

The Rehabilitation and Future of Greek Railways

IN a recent broadcast from Athens Radio, Lt.-Colonel W. Wallace, of the British Economic Mission to Greece, paid tribute to the efforts of Greek railwaymen in the restoration of their damaged railways. Only the short Tripolis-Zevgolatio section gap remained to be closed, in fact, before the Piraeus-Athens-Peloponnesus Railways would be re-opened completely.

The Thessalian and the North-Western Railways, though hampered by the lack of materials, were giving the best service possible. The Hellenic Electric Railway again carried normal traffic. Salonika was linked again with Turkey, and Athens with Khalkis and Gravia. The great bridges in the central mountains and on the plains of Macedonia would rise from their ruins, and Athens and Salonika would soon have rail connection.

Attractive Stations

The re-establishment of railway sections had its value, not only in increased traffic, but also in the feeling of freedom to those cramped in their surroundings. Lt.-Colonel Wallace believed that the railways would play a great part in the advance of Greece. Its attractive stations and staff quarters in Macedonia and Thrace cast the State Railways for the rôle of a missionary in rural housing. By fostering gardening and agricultural interests among the staff, the railways would aid rural economy.

Great opportunities existed in such areas as the Peloponnese for the establishment of hotels and guest houses. Tourism almost certainly would become in the future one of the important invisible exports of Greece, and the railways could assist, not only by providing hotels, but also by putting on more railcars for sightseeing. Co-operation rather than competition with road transport should be sought.

Greek railways, concluded Lt.-Colonel Wallace, were making a good job of their restoration task, and, with a widening of their interests to the benefit of themselves and the community, could face the future with confidence.



Reproduction of a section of a Teledetector recording tape

An indication of a 35 per cent. transverse fissure, within the limits of the joint bar, is shown on the left, which was recorded through both the gauge and centre coils. The sliver (SL) was recorded by the field coil only, the shell (S) by the gauge coil only, and the burn (B) by the centre coil only. The 40 per cent. fissure, near the right of the tape, was recorded by all three pens

Southern Railway Channel Steamer "Invicta"

New vessel for "Golden Arrow" service



Seating arrangement in first class lounge

THE Tss. *Invicta*, the largest and most luxurious vessel built for the Southern Railway cross-Channel service to France, made her maiden voyage under the company's houseflag on October 15 on the Dover-Calais route. She has replaced the well-known *Canterbury* as the seagoing link in the "Golden Arrow" service between London and Paris.

This new 350-ft., 4,178-ton gross vessel, built by William Denny & Bros. Ltd., was launched at Dumbarton in 1939. The outbreak of war prevented her from being used for civilian passengers, and she went straight into Government service as a troop carrier. In this capacity she carried assault troops to Dieppe in 1941 and later to the Normandy beaches. This year she was returned to the Southern Railway,

"stripped as bare as Mother Hubbard's cupboard," in the words of Mr. R. P. Biddle, Southern Railway Docks & Marine Manager. She was reconditioned throughout at the Naval Yard, Walker, of Vickers-Armstrong Limited, and her range of public rooms and private cabins, now handsomely decorated and furnished, is better than on any previous cross-Channel steamer. Special care has been given to accommodation for ladies.

The *Invicta* has two continuous decks, main and upper, and a promenade deck extending almost the whole of her length. A large tea lounge is provided on the promenade deck, together with a general lounge and private cabins. On the upper deck there are a first class restaurant to seat 84 persons, a ladies' room, general

lounge, and smoke room. Forward on the main deck is a ladies' first class lounge, with a number of private cabins, and aft is situated the second class accommodation, including a restaurant to seat 58 persons, smoke room, and a gentlemen's saloon and general lounge.

Furnishings and fittings of the vessel are exceptionally luxurious throughout, and with the spaciousness of the accommodation give the passenger the impression of being on board a small liner rather than a packet boat.

On the one-hour cross-Channel voyage everything has been provided to ensure the continuity of the Pullman car comfort and steadiness associated with the rail part of the journey between London and Paris.

Pullman Car Comfort

In the first class lounge, where the armchairs are arranged in pairs in Pullman-car fashion alongside large plate-glass windows, one has the feeling of being still on the train, an impression to which the remarkable steadiness of the vessel contributes. The ship is air-conditioned throughout, but those who prefer may remain in the open on the upper deck, where they are protected from the full force of the wind by glass wind shields.

Combined with the other amenities of the "Golden Arrow" service the *Invicta* provides the Southern Railway with a vigorous answer to the competition of air travel on the London-Paris route.

Radar is fitted to enable her to make port in foggy weather; there are wing cabs to the bridge which project beyond the ship's side, and a bow rudder for entering harbour stern first. The layout of the bridge wheelhouse and chart room and the location of the various navigational instruments have been designed to simplify the running of the ship and for berthing her under difficult conditions.

The ship has a speed of 22.5 knots, and accommodation for about 1,300 passengers. The main propelling machinery consists of two independent sets of Parsons steam turbines of the latest single-reduc-

(Continued on page 535)



View of the Tss. "Invicta," which replaces the "Canterbury" as the seagoing link in the "Golden Arrow" service between London and Paris

Southern Railway Channel Steamer "Invicta"*First class smoking room and bar**General view of the first class dining room*

RAILWAY NEWS SECTION

PERSONAL

Viscount Portal, Chairman of the Great Western Railway Company, has consented to be President of the Railway Convalescent Homes for 1947, in succession to Sir Robert Burrows, Chairman of the London Midland & Scottish Railway Company.

Sir John Anderson, who has been travelling for some weeks through Canada in connection with his work as a Director of the Canadian Pacific Railway Company, has received the honorary degree of Doctor of Science at McGill University, Montreal. He is also a Director of the Southern Railway Company.

Mr. Helmut W. B. Schröder and Lord Willingdon have joined the board of the Antofagasta (Chili) & Bolivia Railway Co. Ltd.

We regret to record the death on October 28 of Mrs. Margaret Ivatt, wife of the late Mr. H. A. Ivatt, Locomotive Engineer, Great Northern Railway, 1895-1911, and mother of Mr. H. G. Ivatt, Chief Mechanical Engineer, L.M.S.R.

G.W.R. APPOINTMENTS

Mr. S. G. Hearn, Principal Assistant to Superintendent of the Line, Paddington, to be Assistant Superintendent of the Line, Paddington.

Mr. R. Chitty, Principal Assistant to the Solicitor, Paddington, to be Assistant Solicitor, Paddington.

Mr. Maurice Fletcher to be Mining Assistant to the Chief Engineer, with responsibility for mining matters affecting the company in the South Wales, Forest of Dean, Bristol and Somerset areas.

The services of Mr. H. A. Short recently were lent by the Southern Railway to the Colonial Office to report on all aspects of the working of the port of Singapore. He left this country on September 1 and returned on October 3; and while in the Malayan peninsula he also visited and reported on Penang and Port Swettenham. Mr. Short was Docks & Marine Manager, Southern Railway, from 1941 to 1945, during the absence of Mr. R. P. Biddle on Government service, and is now Deputy Traffic Manager.

We regret to record the death, at the age of 71, of Mr. G. J. de Vos van Nederveen Cappel, Hon. M.I.R.S.E., formerly Chief Signal Engineer, Netherlands Railways, who was well known to many in this country for the courtesy shown by him to the Institution of Railway Signal Engineers on the occasion of its summer meeting in Holland in June, 1929. He lectured to the Institution in London in 1930 on the signalling and operating methods employed in the Netherlands. On his retirement from railway service in 1938 Mr. de Vos became associated with one of the leading Dutch signal manufacturers, the Alkmaar Iron & Foundry Works Company.

Rai Bahadur Nibaran Chandra Ghosh, O.B.E., M.Inst.T., who retires on December 22 from the position of General Manager, East Indian Railway, joined that railway from Calcutta University, where he had been studying for the M.A. degree in Economics, with Railway Transport as a subject. He was appointed Probationary Assistant Traffic Superintendent after passing a competitive examination in 1913, and was confirmed as Assistant Traffic

connection with coal traffic. The efforts of the new office resulted in a marked increase in coal loading in 1940. In December, 1940, he became Chief Operating Superintendent, E.I.R. The year 1941-42 was one of preparation for the final stages of the war in India, and considerable amounts of material for aerodrome construction had to be carried; as Chief Operating Superintendent he organised that traffic, of which a large proportion had to move over the E.I.R. The August disturbances in 1942 led to considerable damage on the railway and he was mainly responsible in restoring traffic over the trunk-line routes of the E.I.R. coalfields area. In 1943 the Damodar flood taxed all ingenuity in the maintaining of traffic; in spite of the circumstances a record traffic of foodgrains was carried. In April, 1944, Rai Bahadur Ghosh was appointed General Manager. In 1944-45 the peak of the war traffic had to be carried under extremely difficult conditions. Pre-war train services for passengers have now entirely been restored on the E.I.R.

The first Baron Colwyn, who died last January, and was a Director of the Dunlop Rubber Co. Ltd., formerly a Director of the Underground Electric Railways Co. of London Ltd., and Chairman of the Departmental Committee on Railway War Agreements which reported to the Minister of Transport in 1921, left £305,919.

L.N.E.R. APPOINTMENTS

Mr. J. W. Dunger, Chief Clerk, Train Services, etc., Section, Passenger Manager's Office, Southern Area, to be Assistant to Passenger Manager (Train Services), Southern Area.

Mr. B. M. Strouts, Assistant District Superintendent, Manchester, to be Assistant to Passenger Manager (General), Southern Area.

Mr. A. G. Croxall, Assistant London City Manager, to be District Goods & Passenger Manager, Peterborough.

Mr. K. A. Kindon, Assistant District Goods & Passenger Manager, Nottingham, to be Assistant London City Manager.

Mr. A. A. Snowball, Assistant District Goods & Passenger Manager, Ipswich, to be Assistant District Goods & Passenger Manager, Nottingham.

Mr. G. M. Leach, Assistant to Marine Superintendent, Parkstone Quay, to be Assistant Marine Superintendent.

At a recent gathering, Mr. E. W. T. Morris, Chief Commercial Clerk, District Goods Manager's Office, Birmingham, L.M.S.R., received presentations from Mr. L. C. Brittlebank, District Goods Manager, Birmingham, supported by Mr. J. B. Dunkley, District Passenger Manager, Birmingham, on his retirement after 45 years' service. The gathering was representative of the Birmingham District and included members of the trading community; many tributes were paid to Mr. Morris who also received presentations from traders.



Rai Bahadur N. C. Ghosh
General Manager, East Indian Railway,
1944-46

Superintendent in 1916. During the war of 1914-18 he worked in charge of coal allotment. He proceeded to England on leave in 1922, and studied English railway working (as a pupil with the L.N.W.R.). Rai Bahadur Ghosh returned to India, and in 1924 was promoted District Officer, Dhanbad; he was confirmed in that appointment in 1925. He was in charge of arrangements at the Kumbh Mela in 1927, when he was Superintendent, Transportation, Moradabad. From 1930 to 1934 he was Superintendent, Transportation, Howrah, and during that time ran a record stone traffic for the protection of Hardinge Bridge. In the latter year Rai Bahadur Ghosh was selected as Divisional Superintendent; he was the first Indian divisional superintendent and was the youngest officer to hold that rank at that time on any railway in India. In 1938 he organised traffic serving the Kumbh Mela at Hardwar, when a record pilgrim traffic was moved. When war broke out in 1939 he was Divisional Superintendent, Howrah. Subsequently he was appointed Transport Advisory Officer, Railway Board, in con-

We regret to record the death, on October 15, at the age of 64, of Mr. Frederick William Edge, Director of Labour Relations, Canadian National Railways.

We regret to record the death on October 21, at the age of 62, of Mr. Willie Wood, a Local Director of Thos. W. Ward Limited, Sheffield, and brother of Mr. George Wood, Joint Managing Director of that company.

Mr. S. A. Finnis, District Superintendent, Sunderland, L.N.E.R., who, as recorded in our October 18 issue, has been appointed Assistant Passenger Manager, North Eastern Area, joined the L.N.E.R. in 1927. After training as a traffic apprentice, he was appointed Assistant to Goods

We regret to record the death, at the age of 67, of Sir Guillermo E. Leguizamon, K.B.E., Chairman of the local committees of the Buenos Ayres Great Southern Railway Co. Ltd. and Buenos Ayres Western Railway Limited. He was born in Argentina, and was educated at the National College of Catamarca and Buenos Aires University, where he graduated as Doctor of Law in 1900 and Doctor of Philosophy & Letters in 1901. From 1896-99 he was on the editorial staff of *El Tiempo*; from 1902-12 he was Professor of Literature, Sarmiento National College; and from 1912-22 Deputy-Professor, and for four years acting Professor, of Roman Civil Law, Buenos Aires University. In 1905 he joined the Legal Department of the Buenos Ayres Western Railway, and in

appointed a traffic apprentice. From 1930-33 he carried out special duties in the York, Sunderland, Middlesbrough and Darlington Districts. Thereafter Mr. Purnell received appointments as follows: Assistant Yardmaster, Blyth (1933); Stationmaster & Locomotive Foreman, Kirkby Stephen (1935); Yardmaster, Haverton Hill (1937); Chief Trains Clerk & Chief Controller, District Superintendent's Office, York (1938); Stationmaster & Locomotive Foreman, Bridlington (February, 1940); Stationmaster, Harrogate (November, 1940); Assistant to District Superintendent, Leeds (March, 1943); and Assistant to District Superintendent, Norwich (January, 1944). In June, 1945, Mr. Purnell was appointed Temporary Assistant to Superintendent, Southern Area, the



Mr. S. A. Finnis

Appointed Assistant Passenger Manager, North Eastern Area, L.N.E.R.



The late Sir Guillermo Leguizamon

Chairman, local committees, B.A. Great Southern Railway, 1935-46, and B.A. Western Railway, 1928-46



Mr. A. E. Purnell

Appointed General Assistant to Superintendent, Southern Area, L.N.E.R.

Agent, Hull, in 1931, and Assistant to District Goods & Dock Manager, West Hartlepool, in 1933. He became Dock Superintendent, Tyne Dock, in 1936, Head of Traffic Section, Divisional General Manager's Office, York, in the next year, and Assistant District Superintendent, Sunderland, in 1939. Mr. Finnis was called up with the Supplementary Reserve on September 1 of that year. He went to France as Adjutant, No. 1 Railway Operating Group, R.E., and, after the fall of France, to the Middle East as Dock Superintendent, Port Said. He later became Dock Superintendent, Alexandria, and then D.A.Q.M.G. (Movements & Transportation), Tobruk. He was taken prisoner at the fall of Tobruk, and was released in April, 1945. Mr. Finnis was appointed District Superintendent, Sunderland, on January 1, 1945, while still a prisoner of war, and took up the duties of the post in September of that year.

Mr. E. G. Corner, one of the Assistants to the General Manager, Port of Bristol Authority, has retired, after nearly 50 years' association with shipping, mainly in Bristol, where he began his commercial career in 1898 with Elder Dempster & Company. When changes were made in the Canadian trade he went to the Canadian Pacific. After two years in London he joined the docks staff at Bristol in 1907.

1913 was appointed Chief Local Lawyer; he became a member of the local committee in 1915, and Chairman in 1928. Five years later he was elected Vice-Chairman of the local committee of the Buenos Ayres Great Southern Railway, of which he became Chairman in 1935. Sir Guillermo Leguizamon was a Delegate and Secretary of the first South American Railway Congress in 1910, and since the second congress, in 1922, had been a member of the permanent committee. He was a member of the Honorary Financial Advisory Committee to the Government in 1932, and Minister Plenipotentiary with the Roca Mission to Great Britain in 1933, when he was created an Honorary K.B.E. In 1936 he was appointed the first Chairman of the then newly-formed British-Argentine Railway Committee in Buenos Aires.

We regret to record the death on October 29, at the age of 57, of Mr. Hubert George Salmon, C.I.E., A.M.Inst.C.E., who retired last year from the position of Chief Government Inspector of Railways, India.

Mr. A. E. Purnell, who, as recorded in our October 18 issue, has been appointed General Assistant to the Superintendent, Southern Area, L.N.E.R., joined the North Eastern Railway in 1921, and in 1927 was

position which he now leaves to become General Assistant to Superintendent, Southern Area.

L.M.S.R. STAFF CHANGES

Mr. J. W. Edge, Yardmaster, Stoke, to be Yardmaster, Chaddesden.

Mr. H. G. Walker, Assistant District Controller, Nuneaton, to be Yardmaster, Nuneaton.

Mr. D. C. I. Reynolds, Running Shed Foreman, Goole, to be Assistant District Locomotive Superintendent, Shrewsbury, in place of Mr. C. Cunliffe, retiring.

Mr. S. J. Whittenbury, Chief Clerk, Goods Department, St. Pancras, to be Goods Agent, Bow & Old Ford, in place of Mr. L. A. Pearman, retired.

Mr. H. Aiers, Stationmaster & Goods Agent, Purfleet, also in charge of Purfleet Rifle Range, to be Stationmaster & Goods Agent, Upminster, also in charge of Upminster Bridge & Emerson Park Halt, in place of Mr. P. W. Williams, promoted.

Mr. W. C. Labraham, District Permanent Way Inspector, Wellingborough, to be Chief Permanent Way Inspector, Northampton, in place of Mr. J. Dunham, retired.

Mr. A. Pitt, Assistant District Foreman, Road Motor Engineer's Department, Birmingham, to be District Foreman, Road Motor Engineer's Department, Birmingham, in place of Mr. T. W. Braithwaite, promoted.

Questions in Parliament

Leicester—London Rail Service

Mr. T. N. Donovan (Leicester East—Lab.) on October 22 asked the Minister of Transport how many passenger trains passed through Leicester, without stopping, between 8.40 p.m. and midnight on weekdays and Sundays *en route* to London; and whether he would arrange for one or more of such trains to stop to pick up passengers at Leicester.

Mr. Alfred Barnes (Minister of Transport) stated in a written answer: The answer to the first part of the question is none. The second part does not, therefore, arise.

Railway Coal Stocks

Sir Patrick Hannon (Birmingham, Moseley—C.) on October 22 asked the Minister of Fuel & Power if he would inform the House of the stocks of coal available, or which would become available, for the maintenance of railway transport in accord with the passenger timetables published by the four principal railway companies; and if the published services could be continued without prejudice to goods traffic, the maintenance of which was important during the winter months.

Mr. E. Shinwell (Minister of Fuel & Power), in a written answer, stated: The stocks of coal for railway services generally amount to about 1½ weeks' winter supply at the present time. With regard to the last part of the question, I am in consultation with the Minister of Transport, and will communicate with Sir Patrick Hannon.

London-Bedford Rail Service

Lieutenant T. C. Skeffington-Lodge (Bedford—Lab.) on October 21 asked the Minister of Transport why on October 7 the departure of the 8.16 a.m. train from Bedford to London had been incorrectly announced as 8.11 a.m. and had been 50 minutes late arriving at St. Pancras; why on October 8 and 9 the 5.32 p.m. train from London to Bedford had been 17 minutes and 33 minutes late, respectively; and whether he would investigate those irregularities with a view to improving the London-Bedford service.

Mr. Alfred Barnes: My information does not agree in all respects with the statements contained in this question. As the answer necessarily involves considerable detail, I will circulate it.

Major C. C. Poole (Lichfield—Lab.): Seeing that Mr. Skeffington-Lodge is so credibly informed on the workings of the 5.32 p.m., may we hope that it is not correct that this is the train which he uses when he leaves this House? (Laughter.)

Mr. C. W. Dumpton (St. Albans—Lab.): When the Minister is giving attention to the train services from St. Pancras to Bedford, will he also consider the train services to intermediate stations, and particularly to St. Albans, about which there are considerable complaints?

Lieutenant Skeffington-Lodge: May I point out that my information comes from regular passengers, and that I was not a passenger myself on those occasions; and will the Minister look into the question of the new trains which have been put on, as they are very often far too short, and people are crammed into the corridors for the journey?

Mr. Barnes: The differences are not serious between Lieutenant Skeffington-Lodge and myself.

Later, Mr. Barnes circulated the following statement: After the current timetables had gone to press, it was found necessary

for the 8.16 a.m. train from Bedford to St. Pancras to stop at Flitwick; it was therefore brought forward to 8.11 a.m. and the blackboard notices and sheet timetables displayed at Bedford Station on October 17 were therefore correct. On October 7 this train was 13 minutes late at St. Pancras, not 50 minutes. On October 8 it was 52 minutes late, and this delay was due to late running of the overnight express trains from Glasgow and Edinburgh to St. Pancras due to fog in the Leeds and Shefford areas.

On October 8 and 9 the 5.32 p.m. train travelling from St. Pancras to Bedford was 14 and 12 minutes late, respectively, and not 17 and 33 minutes. The delay on October 8 was a result of locomotive trouble on the 4.35 p.m. train from St. Pancras to Bedford, while on October 9 delay was due to loss of 5 minutes at Sandridge following late running of the 5.17 p.m. train from St. Pancras and a further loss due to the arrival of the 4.35 p.m. train at Bedford South 9 minutes late. The running of these trains is being watched with a view to improvement being made.

Women Employed by Railways

Mr. W. McAdam (Salford North—Lab.) on October 28 asked the Minister of Transport if he would state the number of women employed by the four main-line railway companies at October 1, 1945, and the number employed at October 1, 1946.

Mr. Alfred Barnes: The number of women employed by the four main-line railway companies totalled 95,061 on September 30, 1945, and 58,085 on September 30, 1946.

London-Cambridge Rail Service

Major A. L. Symond (Cambridge—Lab.) on October 21 asked the Minister of Transport if he was aware that the winter service of the London & North Eastern Railway did not provide a fast train from Cambridge to arrive at Liverpool Street by 9 a.m.; and, in view of the large number of persons living in Cambridge who had to reach their places of employment in London not later than 9.30 a.m., whether he would arrange for the 7.19 a.m. train to be made a fast train in substitution for the semi-fast 7.47 a.m. train.

Mr. Alfred Barnes, in a written answer, stated: I am informed that the 7.47 a.m. train from Cambridge was introduced in response to a demand for a train which reaches London before 9.30 a.m. The existing trains must be maintained to meet the requirements of passengers from intermediate stations, and I regret that the running of an additional fast train is impracticable at present.

Alton—London Rail Service

Mr. T. N. Donovan (Leicester East—Lab.) on October 24 asked the Minister of Transport whether he was aware that the 8.54 a.m. train from Alton to Waterloo had left Alton Station on Sunday, October 13, at that time, notwithstanding that the 7.59 a.m. train from Winchester, which was advertised to connect with the first-mentioned train, had arrived in Alton Station at 8.55 a.m.; that in consequence nearly 100 passengers had lost their London connection; that similar occurrences were not infrequent at Alton Station; and whether he would take steps to remove that cause of complaint.

Mr. Alfred Barnes stated in a written answer: I am informed that on October 13 the 7.59 a.m. train from Alton to Waterloo was delayed by engineering work. To

have held the electric connecting service to allow for the transfer of passengers would have caused a delay of about 6 minutes to that train.

The electric trains run to a very close schedule and this delay would have caused difficulty at Woking, where this train is joined up with through coaches from the Portsmouth line. It would also have affected the return services, owing to the short lie-over times at the London and country terminals, and caused reactionary delays on the Ascot and Reading services. The following electric train left Alton half an hour later.

Charges for Sleepers

Sir William Darling (Edinburgh South—C.) on October 8 asked the Minister of Transport if he was aware that one could travel any distance in England at the rate of 18s. 5d. for a single-berth sleeper, but between England and Scotland the rate was 33 per cent. higher; and if it was his intention to equalise the charges throughout Great Britain.

Mr. G. R. Strauss (Parliamentary Secretary to the Ministry of Transport) stated in a written answer: No, sir. The journeys for which sleepers are used are, as a rule, considerably longer between England and Scotland than between places in England. The difference between the present charges of 28s. and 21s. for a first class berth is not unreasonable.

Cold Storage and Rail Transport

Captain G. E. P. Thorneycroft (Monmouth—C.) on October 23 asked the Minister of Food, in view of the forthcoming conference of the International Union of Railways, at which modernised refrigerator transport would be discussed, what steps had been taken by his department to ensure that the most modern systems of food storage and transport were employed.

Mr. John Strachey (Minister of Food) stated in a written answer: During the war years my department arranged for the erection of 15 million cubic feet of cold storage space, all of which is supplied with modern equipment. The supply of refrigerated transport is a matter for the Ministry of Transport. There is close contact between the respective departments on the questions.

Manchester Rail and Road Fares

Sub-Lieutenant H. L. Austin (Lancaster, Stretford—Lab.) on October 24 asked the Minister of Transport what were the comparative single fares by railway and bus, tabulating each station and its road equivalent, from Manchester to Stretford, Urmston, Irlam and Astley, respectively; whether he had under review the question of the disparity; and whether he would explain the reasons for such disparities.

Mr. Alfred Barnes, in a written answer, stated: The following are the single ordinary fares:

		s. d.
TO STRETFORD		
From Manchester (London Road)	by rail ...	9½
(Oxford Road)	by rail ...	7½
(Central)	by rail ...	7
*Piccadilly	by road...	3½
TO URMSTON		
From Manchester (Central)	by rail ...	11
(Piccadilly)	by road...	4½
TO IRLAM		
From Manchester (Central)	by rail ...	1
From Salford (Greengate)	by road...	10
TO ASTLEY		
From Manchester (Exchange)	by rail ...	1
From Salford (Greengate)	by road...	10

* Passengers using the road services to Stretford from Manchester (Piccadilly) would, if they travelled by rail, use either London Road or Oxford Road Station

Bus fares are related to individual services and local conditions, and vary widely

in different localities. Railway fares are, generally, on a standard basis applicable throughout the country, so that local adjustments would create anomalies as between different parts of the railway system.

Representations by Superannuitants

Mr. George Wallace (Chisellhurst—Lab.) on October 28 asked the Minister of Transport if he had now completed his examination of the representations made to him on behalf of railway superannuitants; and if he would make a statement on the matter.

Mr. Alfred Barnes: I regret I am not yet in a position to make a statement.

Mr. Wallace: Will the Minister make every attempt to issue an early statement, because many loyal servants are very perturbed at the rather mean action indicated in the circular?

Mr. Barnes: Yes.

Railway Movement of Goods

Mr. M. Edelman (Coventry West—Lab.) on October 21 asked the Minister of Transport whether he would require the railway companies to remove their recently-introduced embargo on the carriage of timber from Hull into the Birmingham and Coventry area.

Sir Frank Sanderson (Ealing East—C.) asked the Minister of Transport whether he was aware that recently the railway companies had been issuing notices in respect of the large number of extra passenger trains that were being brought into service from the beginning of October; and, in view of the fact that there was a shortage of locomotives which was holding up the movement of essential goods, if he would give the matter his consideration with a view to removing that anomaly.

Commander J. F. W. Maitland (Horncliffe—C.) asked the Minister of Transport whether his attention had been drawn to the embargo imposed in the movement of seed, agricultural machinery, and fertilisers by the L.N.E.R.; and, in view of the fact that a difficult season would be made more difficult unless supplies of seed were available in Lincolnshire for winter sowing, if he would take steps to expedite such supplies.

Sir Frank Sanderson further asked the Minister of Transport whether he was aware that orders for fertilisers booked for application to autumn-sown corn were being cancelled due to a restriction forbidding the acceptance of fertilisers for any station in the eastern counties or any stations south of Doncaster on the G.W.R. route; and, in view of the necessity in the national interest that the fertilisers be delivered, if he would see that that restriction was removed forthwith.

Mr. Alfred Barnes: I regret that, due chiefly to a shortage of locomotive power, which is an aftermath of the war, the L.N.E.R. has found it necessary to impose restrictions on the acceptance of traffic over a number of routes. I am examining the situation with the Railway Executive Committee so as to ensure that all practicable means are being taken to afford relief.

The winter timetables introduced by the railway companies on October 6 show more trains than last winter, but fewer trains than were operated this summer.

The present train mileage is 14 per cent. below that of pre-war, although the number of passengers is substantially above the pre-war level. Coal and perishable foodstuffs have been exempted from these restrictions, and special arrangements

also exist to secure the movement of other urgent consignments held back by the traffic restrictions. Under these arrangements, which are worked in conjunction with the other departments concerned, many tons of seed wheat, fertilisers, agricultural machinery, and other commodities have been transported through the congested sections according to the margin of capacity available from day to day.

Sir Frank Sanderson: Is the Minister aware that I hold a letter in my hand from the Superintendent of the Goods and Traffic Department of the L.N.E.R. intimating that the position is no better? In view of the serious consequences to agriculture, will he do everything in his power to get the position reversed?

Mr. Barnes: I understand both the difficulties and the seriousness of the situation. As I have indicated in my reply, the matter was specially examined by the Railway Executive Committee.

Refrigeration

Captain Peter Thorneycroft (Monmouth—C.) on October 28 asked the Minister of Transport if he would give details of refrigerator trains used at present on British railways; and, in particular, state whether ice and salt were still used for the refrigeration of fish, involving carrying roughly one ton of ice and salt for every ton of fish.

Mr. Alfred Barnes stated in a written answer: There are no refrigerator trains used at present on British railways. Inflatable vans are used for the carriage of fish. For conveyance by rail it is the practice of the trade to pack fish in wet ice, which represents about 20 per cent. of the total weight of the package.

L.P.T.B. and Theatre Posters

Mr. E. P. Smith (Ashford—C.) on October 28 asked the Minister of Transport whether he was aware that the L.P.T.B. had increased the rate for the display of theatre posters by approximately 150 per cent. over the pre-war figure; and if he would arrange for the reduction of those charges, having regard to the fact that the Treasury was interested in the success of the entertainment industry.

Mr. Alfred Barnes: The Board's present rates for the display of theatre posters are, I understand, on the same level as those applying to other advertisers and to other branches of the entertainment industry. I do not feel I should be justified in intervening in the matter.

Mr. Smith: Does the Minister realise that his reply will cause a look of dismay to spread over the features of the Chancellor of the Exchequer?

There was no reply.

Adjustment of L.P.T.B. Fares

Mr. Alfred Barnes, M.P. Minister of Transport, made the following statement in the House of Commons on November 4:

"In accordance with my announcement in this House on May 29, I asked the permanent members of the Railway Rates Tribunal, acting as a consultative committee, to advise me as to the best method of adjusting the fares of the London Passenger Transport Board so that, for the year 1947, the balance of the Board's net revenue account would approximate to the fixed annual sum payable to the Board under the Railway Control Agreement. The report of the committee has been published, and copies are available in the Vote Office.

"I have decided to adopt the committee's recommendations, except in one respect, to which I shall refer.

"Since the inquiry, an agreement has been made between the Board and certain sections of its staff which will result in an addition to expenditure of £1,000,000 (including arrears) in 1947 and about £500,000 in subsequent years. The additional revenue required in 1947 must therefore be increased from the £4½ millions estimated by the committee to £5½ millions if no burden is to be thrown on the Exchequer. As the committee's scale involves regrouping of stages, it could not, I am assured, be put into force in less than eight months, and the yield next year would fall short by more than £1½ millions. I have decided, therefore, to amend the committee's scale of ordinary fares in such a way that it can be brought into force quickly, will yield in 1947 the amount required, and will avoid certain practical difficulties inherent in the committee's scale.

"On road and rail services the existing 1½d. fare will be retained and the existing 2d. fares will be raised to 2½d. On the road services all existing fares over 2d. will be increased by 1d., none of these fares having been increased during the war. On the rail services, existing fares of 3d. and 4d. will be increased by 1d. Rail fares over 4d., which have been increased during the war, will remain at present amounts. I will circulate with the Official Report a statement comparing the standard single ordinary fares now in force, those recommended by the committee, and those which I am authorising.

"The revised fares will be brought into operation as early in January, 1947, as possible, and I will announce the date later."

The following is the statement circulated with the Official Report:—

STANDARD SINGLE ORDINARY FARES

Road stages	Distance	Present scale		Recommended by committee	Scale to be authorised
		Rail miles	Road and rail		
1	½	d.	d.	d.	d.
2	1	1½	1½	1½	1½
3	1½	2	2	2	2½
4	2	2	3	3	2½
5	2½	3	4	4	4
6	3	3	4	4	4
7	3½	4	5	5	5
8	4	4	5	5	5
9	4½	Road	Rail		
10	5	5	6	6	6
11	5½	6	7	7	7
12	6	6	7	7	7
13	6½	7	8	8	8
14	7	7	8	8	8
etc.	etc.	etc.	etc.	etc.	etc.

Road-Rail Central Conference

At the Road-Rail Central Conference, held on October 29, and presided over by Mr. A. E. Sewell, Railway Chairman of the Road-Rail Conference, Mr. Roger W. Sewill, Road Chairman of the Road-Rail Conference, referred to the death of Mr. F. W. Lampitt, formerly Chief Goods Manager, Great Western Railway, appreciation of whose work was expressed by the conference at its meetings.

Mr. David Blee, as Mr. Lampitt's successor, and Mr. W. P. Bradbury, Chief Commercial Manager, L.M.S.R., in succession to Mr. F. A. Pope, now a Vice-President of the L.M.S.R., were welcomed.

New members of the Road Panel welcomed were Captain G. P. Upston (Western Region), and Messrs. W. Mousley (West Midland Region), H. Wilkinson (Northern Region), and B. Winterbottom (North Western Region).

The joint procedure for examination of licence applications between the Road Haulage Association and the main-line railway companies was approved. It was reported that the scheme was meeting with general approval in the regions and that many expressions of appreciation had been received from applicants who had appeared before the Committee. Discussions took place on the questions of conditions of carriage, limitation of liability, agreed charges, and other matters affecting both interests.

At a meeting of the Road Panel before the joint meeting, Mr. Roger W. Sewill was re-elected unanimously as Road Chairman of the conference.

New Vessels for the Southern Railway

William Denny & Bros Ltd, Dumbarton, is to build another cross-Channel vessel for the Southern Railway Company, to replace the *Maid of Orleans*. This contract was announced by Colonel Eric Gore Browne, Chairman of the Southern Railway Company, at the ceremony after the launch on October 25 from the Leven Shipyard of the twin-screw steamer *Falaise*, which is intended primarily for the Channel Islands service.

Mrs. Eric Gore Browne was to have performed the naming ceremony of the *Falaise*, but was unable to travel on account of illness. In her absence, Mrs. David Stephens, her daughter, christened the new vessel. Sir Maurice Denny, Chairman of William Denny & Bros Ltd, also was unable to be present, and Mr. John M. Denny, Deputy-Chairman of that company, deputised.

The *Falaise* will have a speed of about 20 knots, and will carry about 1,400 passengers. Mechanical ventilation and heating of the conditioned air, and fluorescent lighting in the public rooms, will be features of the passenger accommodation, and radar and the Denny-Brown stabiliser will be fitted.

Mr. Denny, in the course of his speech proposing the toast of "The Ship, Her Godmother and Her Owners," pointed out that his firm's association with the Southern Railway or its predecessors had started in 1893, when it received the order for the *Seaford*, a twin-screw vessel which plied between Newhaven and Dieppe.

Colonel Gore Browne, submitting the toast of "The Builders," recalled that the *Falaise* was the 43rd ship built by William Denny & Bros. for the Southern Railway.

His company had had 50 vessels when war broke out, and 12 of them had been lost on war service. They were all Denny-built.

"Now we are facing a new world," Colonel Gore Browne added, "and it will interest you to know that at a meeting of our board in London yesterday, we decided to ask you to build for us a successor to the *Maid of Orleans*.

"The fact that your firm is now charged with the duty of building new ships for us, and the story you will read in the newspapers next week of our plans, will, I hope, convince the public that the company puts public advantage and public service ahead of private profit. If, in spite of that effort, it is the decision of the Government to nationalise us, the best hope we can give you is that we shall leave the company in good condition and with our future plans well laid. In years to come, whatever the Government plans may be, the Southern Railway will continue to serve."

Mr. William Denny, a Director of William Denny & Bros Ltd, gave the toast of the Southern Railway Company's marine staff, to which the reply was made by Mr. R. P. Biddle, Docks & Marine Manager, Southern Railway.

A Tractor Chassis for Outer Zone Transport

The various advantages of the tractor-trailer combination with instantaneous coupling gear are already well known. Its adaptability and ease of manoeuvring, together with the fact that the tractor can be used with different types of quickly detachable trailers, are particularly noticeable characteristics.

For this reason, special interest attaches to the new "Nippy" tractor chassis introduced by John I. Thornycroft & Co. Ltd, a large order for which is in hand for the Great Western Railway. This tractor, which is illustrated below, has a wheel-base of 8 ft., is fitted with a 4-cylinder petrol engine developing up to 68 b.h.p., and incorporates the Scammell 6/8-ton automatic coupling and brake gear.

The design of the tractor is based on the 3-ton chassis of the same class made

by this firm, and it is intended mainly for outer zone transport in industrial areas, where journeys over main roads make it desirable for higher average road speeds to be maintained than are normally required with tractors operating in city streets and congested loading yards.

The tractor is attached to the trailer by reversing and running the ramps underneath the rollers on the trailer until a stop is reached, by which time the catches on the tractor engage their rollers on the trailer.

All that then remains to be done is for the hand brake on the trailer to be released. When uncoupling, the hand brake on the trailer is locked on, a lever is lifted in the cab, and the tractor is driven forward. The trailer is then left standing on its jockey wheels and can be manoeuvred by hand.

Southern Railway Channel Steamer "Invicta"

(Concluded from page 529)

tion geared marine type. Originally she was built for coal burning, but steam is now supplied by two Yarrow-type oil-fired watertube boilers. The oil-fuel installation consists of two steam pumping and heating units of Wallsend make. The oil is burnt under the closed stokehold system of forced draught, and six Wallsend patent air distributors and burners are fitted to each boiler.

The *Invicta* is the third ship of her name to be engaged on the Dover-Calais route in the last sixty years. The first *Invicta*, a steel paddle steamer of 1,197 tons, built in 1882 by the Thame Ironworks for the L.C.D.R., was one of the vessels transferred to the Northern Railway of France under the international mail agreement of 1896. Her successor, a twin-screw turbine steamer of 1,650 tons, built by the firm of William Denny & Bros. Ltd. in 1905, for the S.E.C.R., was sold in 1919 and survived until 1931.

The *Canterbury*, which, as stated, has given place on the Dover-Calais run to the new *Invicta*, has been withdrawn from service for overhaul, and it is expected she will resume service on the Folkestone-Calais route on December 1.



A Thornycroft "Nippy" trailer-tractor combination

Staff & Labour Matters

Southern Railway Marine Workshop Staff, Dover

The Industrial Court recently issued its decision on a claim submitted to it by the National Union of Railwaysmen in the following terms of reference:—

"To ask the Industrial Court to determine the Union's claim that the rates of pay and allowances paid to boilermaking grades employed in the Southern Railway Company's marine workshops, Dover, should be brought up to the rates of pay and allowances as paid to boilermaking grades employed by the said company at Newhaven, and that these rates shall operate as from April 29, 1943."

The court, which heard the parties on October 7 last, states that, having given careful consideration to the evidence and submissions of the parties, it finds that the claim has not been established, and has awarded accordingly.

Grading of Automatic Welding Machine Operators

The Industrial Court has issued its award on a claim referred to it by the employees' side of the Railway Shopmen's National Council in the following terms of reference:—

"To ask the Industrial Court to hear and determine the claims of the employees' side of the Railway Shopmen's National Council that the operators of the following automatic welding machines should be paid at the skilled craftsman's rate: (1) automatic welding machine, Derby Locomotive Works, L.M.S.R.; (2) automatic stud welding machine, Crewe Locomotive Works, L.M.S.R."

The parties were heard by the court on July 29, September 13, and October 22, and the court viewed the machines in question at Derby and Crewe on August 22.

The award stated that on behalf of the trade union side of the council it had been stated that the skilled craftsman's rate referred to in the terms of reference was the skilled welder's base rate, which at Derby was 46s., and at Crewe 50s., a week. It also had been stated that negotiations had been taking place through the medium of the Railway Shopmen's National Council for the establishment of national rates of pay for welders. In support of the claim it had been stated that the work for which the machines in question were designed had previously been carried out by skilled welders at Derby and by fitters at Crewe. In respect of the work of the stud welding machine at Crewe, it had been contended that the job should not be segregated, but should be carried out as part of the ordinary work of a fitter at present, and with regard to the automatic welding machine at Derby that a skilled welder should be called on to man the machine.

In support of those contentions, it had been pointed out that the railway company would benefit considerably from the increased output resulting from the use of the machines, and that the further developments of the two machines, which undoubtedly would take place, would result in the displacement of craftsmen. It was submitted that there was no justification for the manning of the machines by grade 2 machinists proposed by the company on the basis of note 3 to Schedule B of Industrial Court Award No. 728 of July 8, 1922, under which grade 2 machinists were defined as "machinists of skill and experience who are not included elsewhere in this grading scheme." It had never, it had been contended, been contemplated that such rates should be applied to weld-

ing machines, and, furthermore, the court had not made any award concerning the rates of pay of either electric or oxy-acetylene welders, which had always been dealt with by the company concerned having regard to the operations performed, together with the skill required.

As against the claim, it had been submitted on behalf of the employers' side of the Council that it had been an accepted principle over many years for the operators of machines to be paid according to their skill and the degree of skill called for by the different types of machines they were required to operate; and the companies could not accept the contention that, irrespective of the circumstances, on a machine being introduced to perform work hitherto undertaken by a craftsman, the craftsman's rate should be paid to the machine operator.

In support of that submission, reference had been made to paragraph 28 of Industrial Court Award No. 728, and it had been contended that the court in that award had recognised (1) that in the case of work originally performed by skilled craftsmen by hand and subsequently undertaken by machine, it was appropriate for the machines to be manned by other than skilled craftsmen; (2) that the degree of skill of the operator of a particular machine should influence his pay; (3) that it was appropriate for the management to choose men from the unskilled classes for the manning of machines and promote them to different grades of machinists with commensurate increases in pay as they advanced in skill and experience.

It had been contended that in the light of the pronouncements of the court and the conclusions to be drawn from them, the company was justified in its proposal to man the machines in question by grade 2 machinists for whom the base rate was 40s. a week. In support of that contention the company had made reference to an agreement accepted by the Union on May 20, 1936, and operative retrospectively from July 1, 1935, under which men employed on a butt tube welding machine at Derby had been classed as grade 2 machinists with a base rate of 40s. a week, and it further had been stated that men employed in the Crewe Works

on a butt tube welding machine of the same type had been similarly graded. Both of those agreements were still operative.

The award stated that the court had given careful consideration to the evidence and submissions of the parties, and was satisfied that the rates of the operators of the automatic welding machines referred to in the terms of reference, that was to say, the automatic welding machine at Derby and the automatic stud welding machine at Crewe, fell to be dealt with in accordance with the provisions of award No. 728, which related to the rates of wages and conditions of service of the various grades of workers employed in railway workshops. Paragraph 43 of the award provided that, in the case of men not specifically provided for in the schedules to the award, the position of such men should be determined on the basis of analogy to the classes specifically dealt with, and the court in that decision had proceeded accordingly.

In both the cases referred to in the terms of reference the court was satisfied that the work on which the men concerned were employed did not call for the employment of a skilled welder, and that in both cases the rate proper to be paid would be less than that payable to a skilled welder. In other trades for which rates were set out in award No. 728, provision was made for the payment of workers who did not possess the qualifications of a skilled worker in the trade concerned at rates less than the rate for the skilled worker.

In the light of all the evidence put before the court, the court took the view that the rate proper to be paid to the operator of the automatic welding machine at Derby should be 42s. a week; and that, in the case of the automatic stud welding machine at Crewe, having regard to the degree of skill required by the operator of the machine, the rate proposed by the company, that was, 40s. a week, could not be regarded as inadequate and should be put into operation; and it so awarded. That decision was without prejudice to the negotiations at present taking place through the medium of the Railway Shopmen's National Council in regard to welders' rates of pay.

G.W.R. Post-War Rolling Stock

An exhibition of new and refurbished coaches and other vehicles, representative of the post-war main-line travel facilities to be provided on the G.W.R., was held at Paddington Station on November 5. The demonstration train was headed by the "Castle" class locomotive No. 5091, *Cleeve Abbey*, which recently has been converted from coal to oil-burning. One of the new standard third class coaches was included in the train. These vehicles seat 64 passengers in 8 compartments, and have an over-all length of 64 ft., which has permitted the width of the compartments to be increased from 5 ft. 7 in. as in previous stock to 6 ft. 2 in. This carriage was coupled to a composite coach refurbished to show a typical scheme of decoration to be adopted for post-war vehicles of this type. Both the new third class coach and the refurbished composite vehicle have fluorescent lighting; in the first class compartments two lighting tubes

are fitted behind the front of the luggage rack to provide comfortable illumination for reading; and one tube is located in the centre of the ceiling; the third class coaches are lighted by two fluorescent tubes in the ceiling. The exhibition train included, also, restaurant cars of the type described in our February 8 issue.

The remaining vehicle in the train was the first of the company's fleet of first class sleeping cars to be refurbished and redecorated. These cars contain 10 compartments, eight of which have communicating doors to form double berths when required.

After inspecting the train, visitors were shown a model of one of the two new cross-Channel ships which are now under construction by the G.W.R. for services to the Channel Islands and elsewhere (see our April 26 issue). Lord Portal, Chairman of the G.W.R., and Sir James Milne, General Manager, said at a reception that the introduction of the new vehicles was governed by availability of materials. Some would soon be running between London and Cornwall.

Institute of Transport Anniversary Luncheon

Mr. G. R. Strauss
on future ownership

Mr. R. Stuart Pilcher, President of the Institute of Transport, was in the chair at the anniversary luncheon of the Institute, held at the Connaught Rooms, Great Queen Street, London, W.C.2, on November 5. Mr. G. R. Strauss, M.P., Parliamentary Secretary of the Ministry of Transport, was the principal guest. There were 257 members and guests at the luncheon.

Mr. Pilcher, in welcoming Mr. Strauss, said that they were celebrating the 27th anniversary of the foundation of the Institute, the membership of which was still increasing. He mentioned that the Ministry of Transport had made a token donation towards the fund with which it was hoped to secure premises for the Institute.

Mr. G. R. Strauss said that he had accepted the invitation to be present at the luncheon with some trepidation, because represented among members of the Institute were all the skill, all the wisdom, and all the experience of the transport world. The Institute represented the most important industry of the country, for on it the whole prosperity of the country depended.

He would like to discuss with those present in detail the proposals which the Government had in mind for the transport industry, but he knew they would appreciate that to do so was more than his job was worth. On the other hand, he always found it uncongenial to speak in generalisations and platitudes, and even more to listen to them. Moreover, the whole transport world undoubtedly would be very closely affected by the impending changes which the Government intended to make. He hoped, therefore, that he would not engender heat by putting forward certain basic hard facts which were behind the nationalisation policy of the Government.

DIFFERENCES OF OPINION

There were genuine differences of opinion between those who supported the Government's proposals and those who opposed them. Government supporters were of opinion that those who opposed the impending change in transport were inspired by doctrinaire ideology, just as those who opposed nationalisation made the same charge against the Government. The Government policy was that public utilities should be inspired by motives arising from the public interest, and not by private profit.

The economic conflicts in the transport industry in the years before the war were leading to a severe crisis, and it was clear that some action would have to be taken to resolve these conflicts. The rates structure of the railways, built up over a hundred years, and that of the road rates structure were inconsistent. The stability of the whole railway system was being threatened by the road industry. Numerous inquiries had taken place, which had culminated with the square-deal campaign and with the Transport Advisory Council report in 1939. These, and all subsequent proposals, have been designed to achieve correlation of road and rail rates. All these proposals, in essence, were an attempt to find a formula while still taking into account the relative costs of rail and road transport. There were, however, inherent fundamental differences between the two branches of the industry, and this had been recognised by Lord Leathers

when he was Minister of Transport, for in speaking of the T.A.C. report and the square deal, he had said that it would not solve the problem, and that some more radical solution would have to be found.

Latterly a new attempt had been made to reconcile the irreconcilable, and the ablest men in the transport industry had got together for this purpose. They were tackling the same obstinate problem—reconciling the rates of the two systems. The results of their labours had been not to overcome the basic difficulties involved, but to conceal them by generalisations. What were the road factors on which road rates should be based? No indication had been given as to what was meant by the word "reasonable" or "capable of correlation with the road rates structure." These proposals made no attempt to answer the question.

A railway structure based on the road structure would necessitate great changes, which might be against the national interest, especially as it might call for higher charges for low-grade traffics. It was no reflection on the people who had tackled the problem that they had failed to solve the impossible.

So far all the energy had been given to trying to correlate the rail and road industry on the basis that they remained financially separate. If the separate financial entities were to disappear, would it not be possible to devise a rates structure based on the needs of industry and the travelling public, rather than on the rates structure of the two industries? It was clear to him that no solution was possible, except with the establishment of a community of financial interest by a common ownership.

Whatever the future of the transport industry in this country might be, he felt sure that members of the Institute of Transport would continue to make this great public service as efficient as possible, so that it might bring the maximum prosperity to all.

Sir Frederick Handley Page, who thanked Mr. Strauss for his speech, said that he agreed that the members of the Institute represented all the wisdom, skill, and experience of the transport industry, and he hoped that members of the Government would not rush in where members of the Institute hardly dared to tread. It was hard work and common business sense which was needed to deal with matters of transport.

It seemed to him that the transport problem was rather like that of two persons who lived in two houses which had a plot of ground at the back, which both desired to buy. He supposed the Government's means of dealing with that was to buy the two houses and also the plot of land, but the problem still remained. Maybe the Government way was to erect on the plot a prefabricated house, which would be a nuisance for all time.

He concluded by thanking Mr. Strauss for the donation which had been made by the Ministry to the Institute's fund, and added that a similar gift had been received from the Ministry of Civil Aviation.

Among those present were:—

Messrs. W. K. Brasher, G. Cole Deacon, C.B.E., V. Z. de Ferranti (President, Institution of Electrical Engineers); Sir Pearson Frank (President, Institution of Civil Engineers); Mr. Sidney Garscic, C.B.E. (Past President), Sir Alexander Gibb, G.B.E., C.B., F.R.S.

(*Past President*), Mr. Alistair M. Gibb, Sir Reginald Hill, K.B.E., C.B., Messrs. R. Kelso (*Past President*), F. B. Lowry, Brig.-General Sir Osborne Mance, K.B.E., C.B., C.M.G., D.S.O. (*Vice-President*), Sir Frank Newson-Smith, Bt., Mr. J. S. Nicholl, C.B.E. (*Past President*), Sir Frederick Handley Page, C.B.E. (*Immediate Past President*), Mr. R. Stuart Pilcher, C.B.E., F.R.S.E. (*President*), Sir Henry Selfe, K.C.M.G., K.B.E., C.B., Messrs. C. J. Selway, C.V.O., C.B.E., G. F. Stedman, M.C., G. R. Strauss, M.P. (*Parliamentary Secretary to the Ministry of Transport*), Gilbert S. Szlumper, C.B.E., T.D. (*Past President*), Sir William Wood (*Past President*).

Silver Jubilee : Metropolitan Graduate & Student Society

The 25th Anniversary Dinner of the Metropolitan Graduate & Student Society of the Institute of Transport, was held on Thursday of last week, October 31, at the Abercorn Rooms, Liverpool Street, E.C.2, under the chairmanship of Mr. A. W. Satchell. The toast of "The Society" was proposed by Sir Frederick Handley Page, C.B.E., Past President of the Institute of Transport, and responded to by the Chairman. Mr. D. W. Aldred (of London Transport), a Vice-President of the Society, proposed the toast of "The Visitors," to which Mr. D. R. Lamb, a former Member of Council of the Institute of Transport, replied.

As was appropriate to the Silver Jubilee Anniversary Dinner, the various speakers referred to the inception and development of the Society. Some months after the foundation of the Institute of Transport, a number of London graduates and students met to hear short papers. Later, on May 13, 1921, a meeting was held to hear a paper from Mr. Alex J. Webb on the formation of graduate and student societies, and arising out of his proposals, a provisional committee was set up, which resulted in the formation of this Society, the first body of its kind to be formed in the Institute of Transport. The inaugural meeting was held on October 31, 1921, by which time 70 graduates and students had joined. During the past quarter of a century more than 1,100 graduates and students in the metropolitan area have been at some time members of the Society; of the original number 13 are still active members, and 10 were present at the dinner. Mr. Alex J. Webb, the first Honorary Secretary, and Chairman in 1925-26, was prevented by illness from attending.

The Secretary since 1926 has been Mr. Cyril F. King, and many tributes to his work were paid in the course of the evening. He was made the recipient of a wallet and cheque, subscribed for by members and friend, which was presented to him by Mr. Charles F. Klapper, who was Chairman of the Society during the years 1940-46. In expressing his thanks, Mr. King said that the membership had grown from 155 in the first year to nearly 500 at the present time, which was the largest so far recorded in the history of the Society.

MINISTER OF TRANSPORT'S NATIONAL SAVINGS MESSAGES.—The Minister of Transport has issued messages to road transport employers and workers asking for their continued co-operation in National Savings. The Industrial Savings Drive is to be continued until the end of February next, with the objective of £520 millions in National Small Savings before March 31, 1947.

Notes and News

More G.W.R. Dining Cars.—As from October 28, dining car facilities have been provided on weekdays on the 11.15 a.m. from Paddington to Weston-super-Mare and the 4.35 p.m. from Weston-super-Mare to Paddington.

Civil Engineering Assistants Required.—Senior and junior civil engineering assistants are required by a main-line railway company. Candidates must be experienced in surveying and levelling, design of structures, railway layouts, contract documents, and bills. See Official Notices on page 539.

Railway Students' Association.—Sir Charles Newton, Chief General Manager, L.N.E.R., who has accepted the Presidency of the Railway Students' Association, will deliver his presidential address at the London School of Economics at 6.30 p.m. on November 13. The chair on this occasion will be taken by Sir William Wood, President, L.M.S.R.

Permanent Way Institution: Manchester & Liverpool Section.—At a meeting of the Manchester & Liverpool Section, Permanent Way Institution, in the City Technical College, Byrom Street, Liverpool, on November 9, at 3 p.m., at the conclusion of other business, a lecture on "Wages Pay Roll procedure in the Chief Civil Engineer's Department of the L.M.S.R. from the Completed Timesheet to Pay Day," will be given by Mr. Thomas Williams, F.S.S., A.M.Inst.T., of Watford.

G.W.R. Permanent Way Instructional Train.—Some 2,000 members of the staff of the Great Western Railway throughout the system are being given the opportunity of seeing and using a variety of 26 of the latest types of portable equipment. This is carried on a special demonstration train which spends three or four days at such important points as Reading, Bristol, Wolverhampton, and Plymouth. The train consists of 17 vehicles and a camping coach; the latter accommodates the demonstration staff of six through the whole of an 8-week tour. Every demonstration occupies about five hours. The

processes include the construction of treble bridging; the use of compressor drills and hammers, and of petrol-driven cross-cut saws for cutting sleepers; hoeing grass from under bushes with petrol-driven rotary hoe to prevent fire spreading; and an apparatus to drive wooden and concrete fence posts into the ground without digging.

Charing Cross Bridge Removal.—On November 5 the London County Council was asked to give higher priority to the removal of Charing Cross railway bridge, recommended by the Town Planning Committee in its report. The Committee has informed the Ministers of Transport and of Town & Country Planning that it welcomes the Railways (London Plan) Committee's report as a substantial contribution to the solution of London's major railway traffic problems. It favours the lowering of the main-line viaduct route terminating at Waterloo Junction to subsurface level, which, it suggests, should begin near the South Bermondsey spur rather than near Tower Bridge Road. The possible extension of the Post Office tube and the provision of a similar narrow-gauge parcels tube linking up the main-line termini also are recommended.

Through Rates for International Traffic.—A meeting of a sub-committee of the Goods Traffic Committee of the International Union of Railways was held from October 22 to 25 at the offices at 3, Grosvenor Gardens, London, S.W.1, of the Continental Traffic Managers' Committee, in order to consider the establishment of a document providing for the acceptance by the British railways of the provisions of the Berne Convention, subject to the derogations necessary to conform to British law and transport conditions. This document, when completed, will form the basis for the establishment of through international tariffs to which the British railways will be parties, and will constitute an invaluable step forward in the promotion and development of through goods traffic between the Continent and Great Britain. The members of the sub-committee took part in an excursion to Cambridge on October 24, and were the

guests at an informal lunch at the Charing Cross Hotel on October 25, when Mr. L. H. K. Neil, Continental Traffic Manager, L.N.E.R., and Chairman of the Continental Traffic Managers' Committee, presided.

L.M.S.R. Presentation to Baltimore & Ohio Railroad.—In the article in our last week's issue concerning the making of a presentation by Mr. W. K. Wallace, Chief Civil Engineer, L.M.S.R., to Mr. R. B. White, President, Baltimore & Ohio Rail-

British and Irish Railway Stocks and Shares

Stocks	Highest 1945	Lowest 1945	Prices	
			Nov. 5, 1946	Rise Fall
G.W.R.				
Cons. Ord. ...	60 $\frac{1}{2}$	47 $\frac{1}{2}$	60	+ 1 $\frac{1}{2}$
5% Con. Pref. ...	124 $\frac{1}{2}$	104 $\frac{1}{2}$	126 $\frac{1}{2}$	+ 7 $\frac{1}{2}$
5% Red. Pref. (1950) ...	107 $\frac{1}{2}$	101 $\frac{1}{2}$	1,6 $\frac{1}{2}$	-
5% Rt. Charge ...	137 $\frac{1}{2}$	120 $\frac{1}{2}$	140 $\frac{1}{2}$	+ 7 $\frac{1}{2}$
5% Cons. Guar. ...	135 $\frac{1}{2}$	117	37 $\frac{1}{2}$	+ 5
4% Deb. ...	118	106	29 $\frac{1}{2}$	+ 6 $\frac{1}{2}$
4 $\frac{1}{2}$ % Deb. ...	119 $\frac{1}{2}$	108	29 $\frac{1}{2}$	+ 6
4 $\frac{1}{2}$ % Deb. ...	124 $\frac{1}{2}$	111 $\frac{1}{2}$	130 $\frac{1}{2}$	+ 3
5% Deb. ...	138	124	142 $\frac{1}{2}$	+ 5
2 $\frac{1}{2}$ % Deb. ...	83	74 $\frac{1}{2}$	95 $\frac{1}{2}$	+ 2
L.M.S.R.				
Ord. ...	33	23 $\frac{1}{2}$	30	+ $\frac{1}{2}$
4% Pref. (1923) ...	65	50	64	+ 2 $\frac{1}{2}$
4% Pref. ...	80 $\frac{1}{2}$	69 $\frac{1}{2}$	86	+ 2
4% Red. Pref. (1955) ...	106 $\frac{1}{2}$	99 $\frac{1}{2}$	105 $\frac{1}{2}$	+ 1
4% Guar. ...	106 $\frac{1}{2}$	97	1,8 $\frac{1}{2}$	+ 1
4% Deb. ...	110 $\frac{1}{2}$	102	120	+ 5 $\frac{1}{2}$
5% Red. Deb. (1952) ...	110 $\frac{1}{2}$	103 $\frac{1}{2}$	108 $\frac{1}{2}$	+ 2
L.N.E.R.				
5% Pref. Ord. ...	8 $\frac{1}{2}$	5 $\frac{1}{2}$	6	+ $\frac{1}{2}$
Def. rd. ...	4 $\frac{1}{2}$	2 $\frac{1}{2}$	3	+ $\frac{1}{2}$
4% First Pref. ...	62 $\frac{1}{2}$	49 $\frac{1}{2}$	59 $\frac{1}{2}$	+ 1 $\frac{1}{2}$
4% Second Pref. ...	33 $\frac{1}{2}$	24 $\frac{1}{2}$	28	+ 4 $\frac{1}{2}$
5% Red. Pret. (1955) ...	103	96	104	+ 3
4% First Guar. ...	104 $\frac{1}{2}$	95	1,7 $\frac{1}{2}$	+ 1 $\frac{1}{2}$
4% Second Guar. ...	97	89 $\frac{1}{2}$	101	+ 4
3% Deb. ...	91 $\frac{1}{2}$	82 $\frac{1}{2}$	104	+ 5 $\frac{1}{2}$
4% Deb. ...	109 $\frac{1}{2}$	101	119 $\frac{1}{2}$	+ 5 $\frac{1}{2}$
5% Red. Deb. (1947) ...	103 $\frac{1}{2}$	100	99	-
4 $\frac{1}{2}$ % Sinking Fund Red. Deb. ...	106 $\frac{1}{2}$	103	107 $\frac{1}{2}$	-
SOUTHERN				
Pref. Ord. ...	79 $\frac{1}{2}$	63	79 $\frac{1}{2}$	+ 4
Def. Ord. ...	27	20 $\frac{1}{2}$	23	+ $\frac{1}{2}$
5% Pref. ...	124 $\frac{1}{2}$	104	125 $\frac{1}{2}$	+ 6 $\frac{1}{2}$
5% Red. Pref. (1964) ...	117	107	115 $\frac{1}{2}$	+ 2
5% Guar. Pref. ...	135 $\frac{1}{2}$	117	137 $\frac{1}{2}$	+ 5
5% Red. Guar. Pref. (1957) ...	117	106 $\frac{1}{2}$	115 $\frac{1}{2}$	+ 2
4% Deb. ...	117	104 $\frac{1}{2}$	129 $\frac{1}{2}$	+ 6 $\frac{1}{2}$
5% Deb. ...	137	124	139 $\frac{1}{2}$	+ 2
4% Red. Deb. (1962-67) ...	112	104 $\frac{1}{2}$	113 $\frac{1}{2}$	+ 1
4% Red. Deb. (1970-80) ...	113 $\frac{1}{2}$	104	115 $\frac{1}{2}$	+ 3
FORTH BRIDGE				
4% Deb. ...	106	103	109	-
4% Guar. ...	106	101	104	-
L.P.T.B.				
4 $\frac{1}{2}$ " A" ...	125	117	133 $\frac{1}{2}$	+ 2
5 $\frac{1}{2}$ " A" ...	135	127	142 $\frac{1}{2}$	+ 1
3 $\frac{1}{2}$ " Guar. (1967-72) ...	100	97 $\frac{1}{2}$	108	+ 2
5 $\frac{1}{2}$ " B" ...	125 $\frac{1}{2}$	115	128 $\frac{1}{2}$	+ 2
"C" ...	70	58	64 $\frac{1}{2}$	+ 2
MERSEY				
Ord. ...	37	31 $\frac{1}{2}$	32	-
3% Perp. Pref. ...	72 $\frac{1}{2}$	68 $\frac{1}{2}$	76	-
4% Perp. Deb. ...	104 $\frac{1}{2}$	104	117 $\frac{1}{2}$	+ 6 $\frac{1}{2}$
3% Perp. Deb. ...	84	78 $\frac{1}{2}$	93	+ 11
IRELAND*				
BELFAST & C.D.				
Ord. ...	8 $\frac{1}{2}$	6	7 $\frac{1}{2}$	-
G. NORTHERN				
Ord. ...	34	24 $\frac{1}{2}$	37	-
Pref. ...	52 $\frac{1}{2}$	42 $\frac{1}{2}$	59	-
Guar. ...	80	68	92	-
Deb. ...	97 $\frac{1}{2}$	87 $\frac{1}{2}$	104	+ 3
IRISH TRANSPORT				
Common ...	—	—	18/10 $\frac{1}{2}$	-
3% Deb. ...	—	—	103 $\frac{1}{2}$	+ $\frac{1}{2}$

* Latest available quotation



Some of the G.W.R. permanent way staff attending a demonstration of portable equipment at Reading

OFFICIAL NOTICES

FOREMAN required by manufacturers of Railway Switches & Crossings, etc., to take full charge of Rail Planing and Machine Shop. Must be a good organiser and have had recent experience in a similar capacity. Good wage for a suitable man. Full particulars to Box 27, *The Railway Gazette*, 33, Tothill Street, Westminster, S.W.1.

THE Hunslet Engine Co. Ltd., Leeds, are urgently requiring the services of Senior Draughtsmen with Locomotive experience preferred but not essential provided applicants can satisfy requirements. Prospects of continuous work with good working conditions and canteen facilities.—Apply, 125, Jack Lane, Leeds 10.

CIVIL ENGINEERING ASSISTANTS (Senior and Junior) experienced in surveying and levelling, design of structures, railway layouts, contract documents and bills, etc., required by Main Line Railway Company.

Engagements on temporary basis at from £7 7s. to £11 10s. per week, plus War Advance (at present 28s. per week) according to qualifications and experience. Applications, stating age, experience, etc., with copies of recent testimonials to Box No. 29, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

SATION DESIGN. A striking example of modern British practice at the important wayside station of Luton. Reprinted from *The Railway Gazette*, July 7, 1944. Price 1s. Post free 1s. 2d.

A DVERTISER desires to buy or lease 3,000 to 6,000 square feet factory space, South-West London preferred. Willing to share. First or second floors acceptable.—Box 33, *The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

THE "PAGET" LOCOMOTIVE. Hitherto unpublished details of Sir Cecil Paget's heroic experiment. Eight single-acting cylinders with rotary valves. An application of the principles of the Willans central-valve engine to the steam locomotive. By James Clayton, M.B.E., M.I.Mech.E. Reprinted from *The Railway Gazette*, November 2, 1945. Price 2s. Post free 2s. 3d.

road, Mr. R. L. McIlmoyle, of the L.M.S.R., should have been described as Engineer Assistant, Structures, Chief Civil Engineer's Department (and not as Assistant Engineer, Structures, which position is held by Mr. S. O. Cotton).

L.M.S.R. Sailing Tickets for Ireland.—Arrangements are announced by the L.M.S.R. for the temporary restoration of sailing tickets to and from Ireland at Christmas and the New Year. Sailing tickets will be necessary to Ireland between December 13 and 31 inclusive; and from Ireland between December 26 and January 13, 1947, inclusive. Applications for sailing tickets may be made up to six weeks in advance of the proposed sailing date. It is announced that there will be no sailings on L.M.S.R. routes to and from Ireland on Christmas Day except via Stranraer and Larne.

Model Railway Opened by L.N.E.R. Official.—The first section of a new and ambitious "0" gauge clockwork and steam model railway, based on L.N.E.R. practice and belonging to the Conway Model Railway Club, of Harrow, was opened recently by Mr. C. P. Hopkins, Assistant General Manager (Traffic & Statistics) and Head of the Central Traffic Office, L.N.E.R. The railway, correct in every detail, is oper-

ated strictly in accordance with full-size practice. All the clockwork engines used have been fitted with controlled mechanisms, by which they are able to move at scale speeds.

Beyer, Peacock & Co. Ltd.—Applications from shareholders of Beyer, Peacock & Co. Ltd. for the 300,000 £1 ordinary shares offered at 21s. amounted to 442,868 shares. Of these, 235,012 were by "rights" and have been allotted in full, and 207,856 represented excess shares, which have been allotted on a reduced basis.

Bombs at Jerusalem Station.—Considerable damage was done to Jerusalem Station on October 30 by the explosion of two bombs which had been deposited in the booking office in suitcases. A girl who was seen bringing the suitcases into the station from a taxi was challenged by a porter. She escaped in the taxi, from which accomplices opened fire on the station as they drove away. A police sergeant brought one of the suitcases out of the station, where it was detonated harmlessly. The second suitcase exploded when he picked it up, setting off the third, and killing him. Later, the taxi was found near the station, and three men were taken into custody. A

girl also has been detained and questioned by the police.

New "Maid of Orleans" for Southern Railway Cross-Channel Service.—The Southern Railway has placed a contract with William Denny & Bros. Ltd., of Dumbarton, for another new cross-Channel steamer for service on the short sea routes to France via Dover and Folkestone. She will replace the *Maid of Orleans* which was sunk by enemy action on June 28, 1944, while returning from the Normandy beaches, and will carry the same name. The new ship, of 3,700 gross tons, will be 341 ft. long and will have a speed of 22 knots. About 1,300 passengers will be accommodated. There will be a full range of first and third class public rooms, including observation and general lounges, smoke rooms, and restaurants. The *Maid of Orleans* will also have accommodation for 24 cars, which is 15 more than can be carried by the *Canterbury*. The ship will be brought into service in 1948.

L.N.E.R. Train Ferry as Aircraft Conveyor.—The L.N.E.R. has overcome the difficulty of conveying aircraft for display in the Paris Exhibition, which opens on November 14. Because of their size—47 ft. long, 13 ft. high, and 11 ft. wide—they could not be conveyed by the usual Continental shipping services, and the L.N.E.R. train ferry, *Essex Ferry*, which resumed service on August 16 last, will be used. The deck of the vessel will present the unusual spectacle of aircraft loaded upon trailers lying alongside railway trucks. The first aircraft will be shipped on November 3, and the second on November 6. To complete the consignment, a 60 ft. trailer loaded with equipment and some ten railway trucks containing aero engines and other material will travel by the train ferry.

Institute of Transport Meetings.—Forthcoming Institute of Transport meetings include one on November 11 at 5.30 p.m., at the Institution of Electrical Engineers, Savoy Place, London, W.C.2, when a paper on "The Regulation of Goods Motor Transport by the Federal Government in the United States" will be given by Dr. Gilbert Walker, D.Litt., M.A.; and one of the Metropolitan Graduate & Student Society, on November 19, at 6.0 p.m., also at the Institution of Electrical Engineers, London, when a paper on "The United Kingdom Commercial Corporation Transport Organisation in Persia, 1941-44," will be read by Mr. H. F. C. Adcock. The annual dinner of the East Midlands Section will be held at the Victoria Station Hotel, Nottingham, on November 15, and will be attended by the President of the Institute, Mr. R. Stuart Pilcher.

Model Railway at a Harrow Railway Club



Mr. J. R. G. Griffiths, Secretary, Conway Model Railway Club, Harrow, explaining to Mr. C. P. Hopkins, Assistant General Manager (Traffic & Statistics), L.N.E.R., the layout of a section of a new model railway

Railway Stock Market

Stimulated by a further all-round advance in British Funds, stock markets continued their upward trend with the volume of business at its highest level since the middle of June. Further considerable selling of Local Loans was reported for re-investment in securities offering higher yields than gilt-edged stocks. Among the latter, home railway prior charges were particularly favoured and, with stock tending to be in short supply, prices recorded another substantial rise.

Demand for bank and insurance shares was less strong, and because of the firmness with which they held, debentures and preference shares of industrial companies were often difficult to obtain in any amount. On the other hand, buying of ordinary or equity shares was strongly in evidence, helped by the good impression created by the latest batch of dividend announcements. The market is not disposed to pay much attention to the possibility that when E.P.T. is abolished it may be replaced by some new scheme for limiting dividend payments. The main emphasis is on the fact that the return on gilt-edged stocks must continue to govern the yield structure of markets; and it is being pointed out that the margin between gilt-edged yields and those on many leading industrial shares is wider than was the case before the recent strong rise in British Funds.

Colliery shares were inclined to attract profit-taking following further gains, but electric supply shares continued in request, and a feature was further demand for transport shares on break-up value estimates; British Electric Traction deferred stock was prominent with a fresh advance to 1280xd, and Thomas Tilling were 58s. 9d. Southdown Motor were 66s., Scottish

Motor 53s. 6d., and Lancashire Transport 51s.

Good institutional and public buying of home rails turned on the fact that prior charge and senior preference stocks still give returns which compare favourably with those on securities in other sections of markets having similar investment merits. Moreover, there is now general confidence of fair compensation for stockholders in the event of nationalisation, which assumes that due regard would be given to the investment standing of individual stocks.

Ordinary or equity stocks have participated moderately in the rise, and there has been good buying of L.N.E.R. first preference, L.M.S.R. senior and 1923 preferences, and also of Southern preferred. Southern stocks were helped by the company's big electrification plans, and incidentally news of the latter also prompted demand for shares of leading electrical equipment companies.

It is being confidently assumed that dividends on home railway junior stocks for the current year will be maintained, and that the large yields still obtainable on these stocks must tend to attract increasing attention at a time when market values are on the up-grade and yields on many industrial equity shares are dwindling. There is, of course, the point that E.P.T. is to be abolished; but the latter may be replaced by a new scheme for limiting industrial dividends, and incidentally home railway stocks are free from E.P.T. considerations. So long as the existing control agreement remains in force, home rail junior stocks can be regarded as virtually assured of dividends around the levels paid for 1945.

Comparison with a week ago shows that Great Western ordinary has moved up

from 58½ to 59½, and the 5 per cent. preference has advanced from 119 to 126, the guaranteed stock from 132 to 137½, and the 4 per cent. debentures from 122 to 128½. Southern deferred improved from 22½ to 23; the preferred ordinary stock was in strong demand and rose from 75½ to 78½, the 5 per cent. preference was 7 points higher at 126, the guaranteed stock put on 5½ at 136½, and the 4 per cent. debentures 6½ at 128½.

L.M.S.R. ordinary has risen from 29½ to 30½, the 1923 preference from 61½ to 63½, and the senior preference from 83½ to 85½. L.M.S.R. guaranteed was 108, compared with 107½, but the 4 per cent. debentures advanced from 114½ to 119.

L.N.E.R. issues reflected the general trend with the main emphasis on prior charges; the 4 per cent. debentures advanced on the week from 114 to 118½ and the 3 per cent. debentures from 100 to 103½. L.N.E.R. first guaranteed improved from 106½ to 107, and the second guaranteed from 99½ to 101. The first preference was 59½, compared with 58½ a week ago, the second preference improved from 27½ to 28, and there were fractional gains in the preferred and deferred stocks.

Elsewhere, Metropolitan Assented participated, gaining a point at 58, and London Transport senior stocks were higher with the 5 per cent. "A" 2½ points up at 142½. London Transport "C," helped by yield considerations and the higher fares decision, moved up further from 63 to 64½.

Argentine rails became less active, although debenture stocks of the leading companies attracted buyers, partly on yield considerations. Antofagasta preference improved to 52, but San Paulo ordinary further reacted to 104. Canadian Pacifics at 18 reflected the rally in dollar securities.

Traffic Table and Stock Prices of Overseas and Foreign Railways

Railways	Miles open	Week ended	Traffic for week		No. of weeks	Aggregate traffics to date			Shares or Stock	Prices		
			Total this year	Inc. or dec. compared with 1944/5		Totals		Increase or decrease		Highest 1945	Lowest 1945	November 5, 1946
						1946	7	1945				
Antofagasta ...	834	27.10.46	£ 48,490	+ 23,820	43	£ 1,446,590	£ 1,276,730	+ 169,860	Ord. Stk.	12	84	112½
Arg. N.E.	753	26.10.46	ps. 317,000	+ ps. 2,000	17	ps. 5,317,600	ps. 5,211,000	+ ps. 106,600	6 p.c. Deb.	10	54	17½
Bolivar	174	Sept., 1946	4,314	- 3,4	39	38,439	44,105	- 5,696	Bonds	25	17	6½
Brazil ...	—	—	—	—	—	—	—	—	Ord. Stk.	7	5	7½
B.A. Pacific ...	2,771	26.10.46	ps. 2,350,000	+ ps. 395,000	17	ps. 37,173,000	ps. 33,584,000	+ ps. 3,594,000	Ord. Stk.	134	104	13
B.A.G.S.	5,080	26.10.46	ps. 3,512,000	+ ps. 620,000	17	ps. 51,787,000	ps. 51,983,000	+ ps. 2,804,000	Ord. Stk.	124	94	17
B.A. Western....	1,924	26.10.46	ps. 458,000	+ ps. 238,000	17	ps. 20,292,000	ps. 19,069,000	+ ps. 1,223,000	"	7	10	5
Cent. Argentine ...	3,700	26.10.46	ps. 3,243,130	+ ps. 277,580	17	ps. 51,616,600	ps. 51,044,225	+ ps. 5,586	Dfd.	5	28	5
Do.	—	—	—	—	—	—	—	—	Ord. Stk.	7½	9½	—
Cent. Uruguay ...	970	26.10.46	36,599	+ 1,635	17	599,700	581,478	+ 18,222	Skt.	16	13	12
Costa Rica ...	262	Aug., 1946	6,220	+ 4,162	9	73,313	65,153	+ 10,160	1 Mt. Deb.	103	102	102½
Dorada	70	Sept., 1946	2,100	6,700	39	279,875	273,135	+ 6,740	Ord. Stk.	7½	44	7
Entre Rios ...	808	26.10.46	ps. 420,400	+ ps. 2,200	17	ps. 7,066,800	ps. 7,110,100	+ ps. 43,300	Ord. Stk.	30/-	23,6	23
G.W. of Brazil ...	1,030	26.10.46	38,200	+ 9,100	43	1,212,000	1,056,000	+ 156,200	Ord. Stk.	86,661/641	+ 81,157,211	—
Inter. Ctl. Amer. ...	794	Sept., 1946	8721	+ 815,471	9	88,244,842	86,661/641	+ 2,57,211	5 p.c. Deb.	78	70	58
La Guaira	22½	Oct., 1946	6,672	+ 1,463	41	56,641	62,380	+ 5,739	Ord. Stk.	41	31	4
Leopoldina ...	1,918	26.10.46	68,781	+ 8,792	43	2,190,604	2,258,663	+ 32,941	Ord. Stk.	4	4	4
Mexican ...	483	31.5.46	ps. 1,461,000	+ ps. 459,100	22	ps. 7,706,200	ps. 13,441,600	+ ps. 5,220,200	Ord. Stk.	155,922	22,264	Ord. Sh.
Midland Uruguay ...	319	Sept., 1946	21,691	+ 2,57	13	61,663	55,661	+ 6,007	Pr. Li. Stk.	75/6	67,6	72,6
Nitrate ...	382	31.10.46	10,293	+ 457	43	178,186	155,922	+ 1,839	Pref. Stk.	155,755	+ 1,839	—
N.W. of Uruguay ...	113	Sept., 1946	6,013	+ 1,441	13	17,54	15,755	+ 1,839	Ord. Stk.	604	50½	104
Paraguay Cent. ...	274	25.10.46	ps. 60,394	+ ps. 12,130	7	ps. 1,411,559	ps. 1,036,400	+ ps. 55,159	Crd. Sh.	77	73½	8
Peru Corp. ...	1,059	Oct., 1946	1,323	+ 11,145	17	629,700	564,925	+ 64,775	Ord. Stk.	104	74	—
Salvador ...	100	A g., 1946	c108,000	+ c14,000	9	c190,000	c189,000	+ c1,000	Inc. Deb.	1,233	—	—
San Paulo ...	153½	—	—	—	—	—	—	—	Ord. Stk.	17/-	10,6	23,9
Talat ...	156	Sept., 1946	6,210	+ 3,745	13	13,260	6,465	+ 6,595	Ord. Stk.	3	1	2
United of Hava a ...	1,301	26.10.46	41,573	- 941	17	878,516	765,676	+ 112,540	Ord. Stk.	—	—	—
Uruguay Northern ...	73	Sept., 1946	1,203	- 442	13	3,809	5,042	- 1,233	Ord. Stk.	—	—	—
Canadian National ...	23,482	Sept., 1946	8,607,000	- 252,510	39	72,529,500	81,830,000	- 9,300,500	Ord. Stk.	24	14½	18
Canadian Pacific ...	17,037	31.10.46	2,344,000	- 165,500	43	60,332,000	66,581,750	- 6,010,750	Ord. Stk.	—	—	—
Barsi Light ...	202	Sept., 1946	15,112	- 1,500	26	144,427	131,265	+ 13,162	Ord. Stk.	131	123	113½
Beira ...	204	Aug., 1946	92,26	+ 16,15	48	859,846	846,863	+ 12,933	Prf. Sh.	10	8½	—
Egyptian Delta ...	607	10.10.46	20,633	+ 1,099	27	330,119	308,189	+ 22,230	B. Deb.	71	55½	68
Manila ...	—	—	—	—	—	—	—	—	Inc. Deb.	97½	85	70
Mid. of W. Australia ...	277	Sept., 1946	18,676	+ 2,858	13	48,623	45,28	+ 3,335	—	—	—	—
Nigeria ...	1,900	Aug., 1946	393,331	+ 199,01	23	1,88,646	1,065,515	+ 818,11	—	—	—	—
Rhodesia ...	2,445	Au., 1946	484,12	- 21,858	8	5,6,3,516	5,52,68	+ 8,943	—	—	—	—
South African ...	13,323	21.9.46	1,201,02	+ 136,12	25	27,759,471	24,819,892	+ 2,919,579	—	—	—	—
Victoria ...	4,774	May, 1946	1,351,280	+ 4,246	—	—	—	—	—	—	—	—

* Receipts are calculated @ 1s. 6d. to the rupee